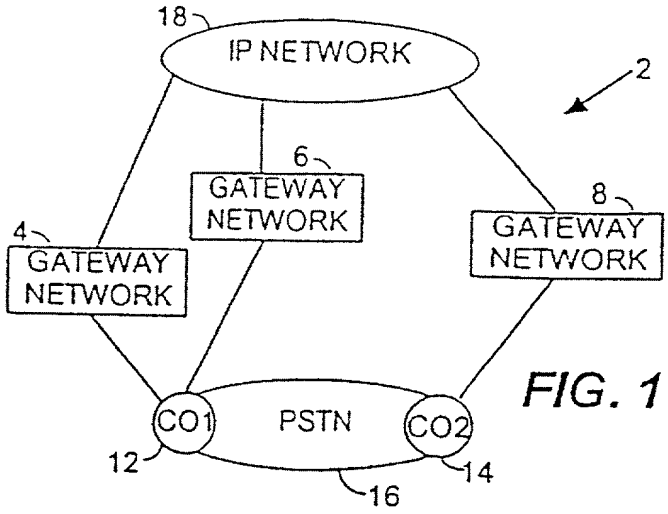
18
IP NETWORK
2
6
GATEWAY NETWORK
8
GATEWAY NETWORK
4
GATEWAY NETWORK
CO1
PSTN
CO2
12
14
16

FIG. 1

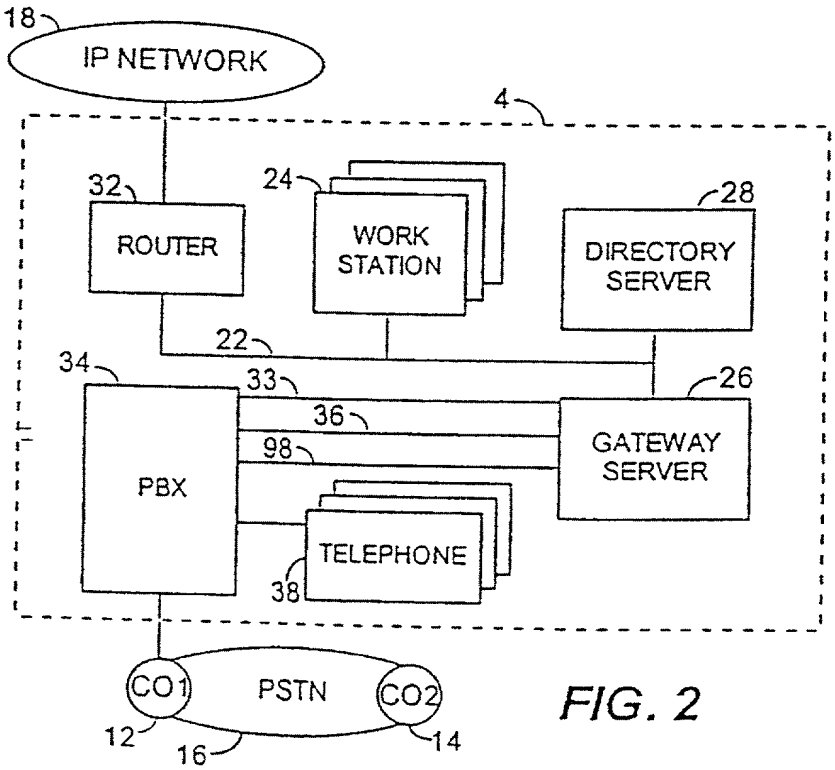
18
IP NETWORK
4
32
ROUTER
24
WORK STATION
28
DIRECTORY SERVER
22
34
33
36
26
98
PBX
GATEWAY SERVER
TELEPHONE
38
CO1
PSTN
CO2
12
16
14

FIG. 2

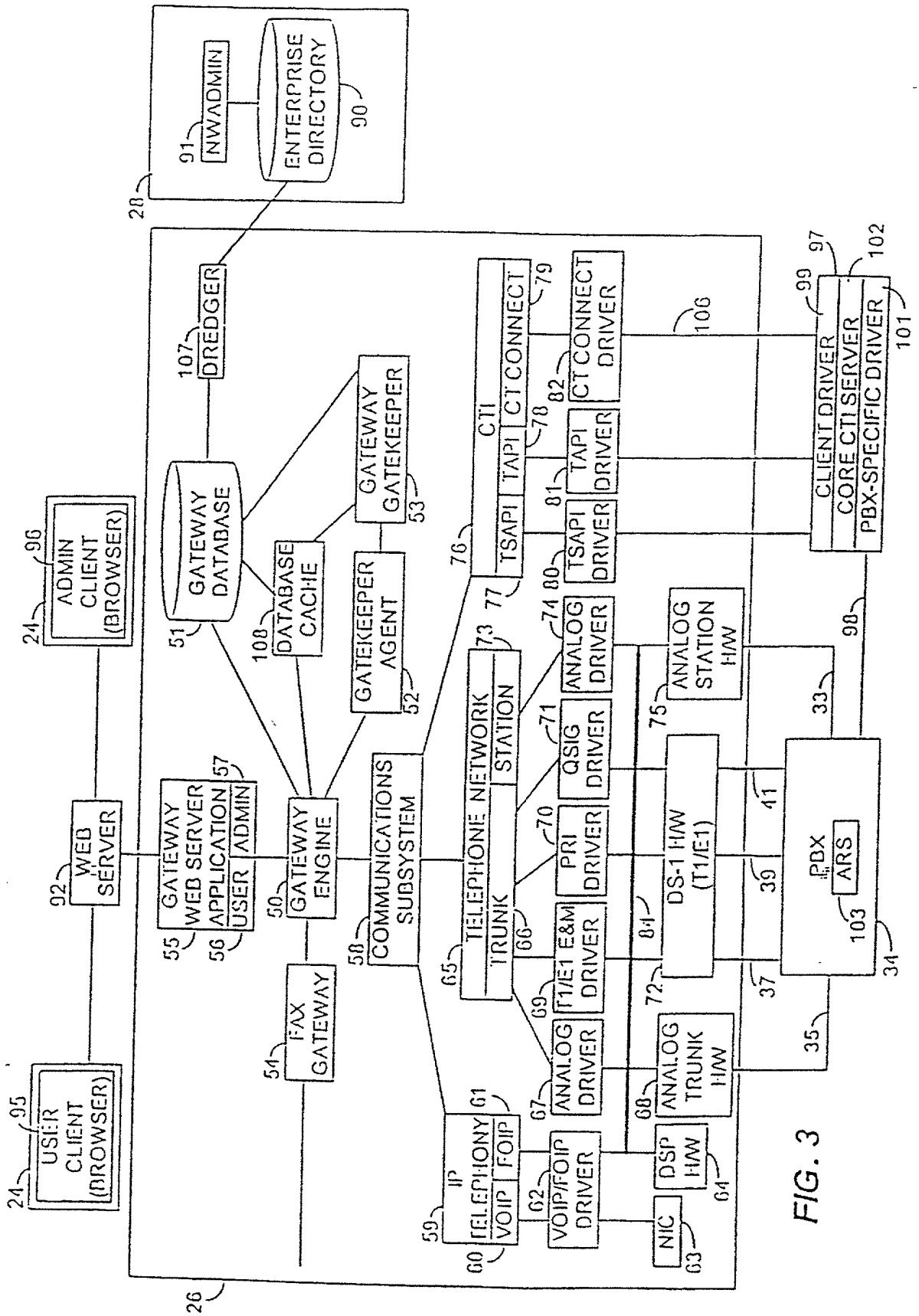
USER CLIENT (BROWSER)
ADMIN CLIENT (BROWSER)
WEB SERVER
GATEWAY WEB SERVER APPLICATION USER ADMIN
GATEWAY ENGINE
FAX GATEWAY
COMMUNICATIONS SUBSYSTEM
IP TELEPHONY VOIP FOIP
VOIP/FOIP DRIVER
NIC
DSP H/W
ANALOG TRUNK H/W
DS-1 H/W (T1/E1)
ANALOG STATION H/W
PBX ARS
TELEPHONE NETWORK TRUNK STATION
ANALOG DRIVER
QSIG DRIVER
PRI DRIVER
T1/E1 E&M DRIVER
ANALOG DRIVER
GATEWAY DATABASE
DATABASE CACHE
GATEKEEPER AGENT
GATEWAY GATEKEEPER
DREDGER
NWADMIN
ENTERPRISE DIRECTORY
CTI
TSAPI TAPI CT CONNECT
TSAPI DRIVER
TAPI DRIVER
CT CONNECT DRIVER
CLIENT DRIVER
CORE CTI SERVER
PBX-SPECIFIC DRIVER

FIG. 3

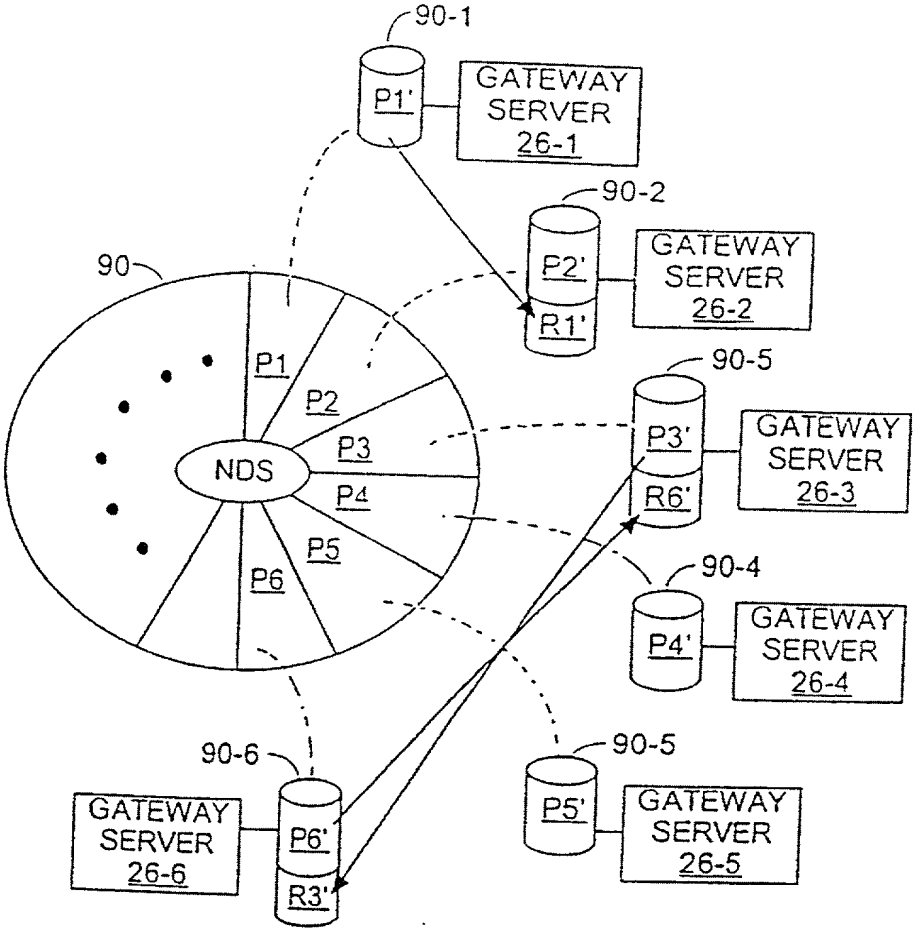
90-1
P1'
GATEWAY SERVER 26-1
90-2
P2'
R1'
GATEWAY SERVER 26-2
90
P1
P2
P3
NDS
P4
P5
P6
90-5
P3'
R6'
GATEWAY SERVER 26-3
90-4
P4'
GATEWAY SERVER 26-4
90-6
GATEWAY SERVER 26-6
P6'
R3'
90-5
P5'
GATEWAY SERVER 26-5

FIG. 3A

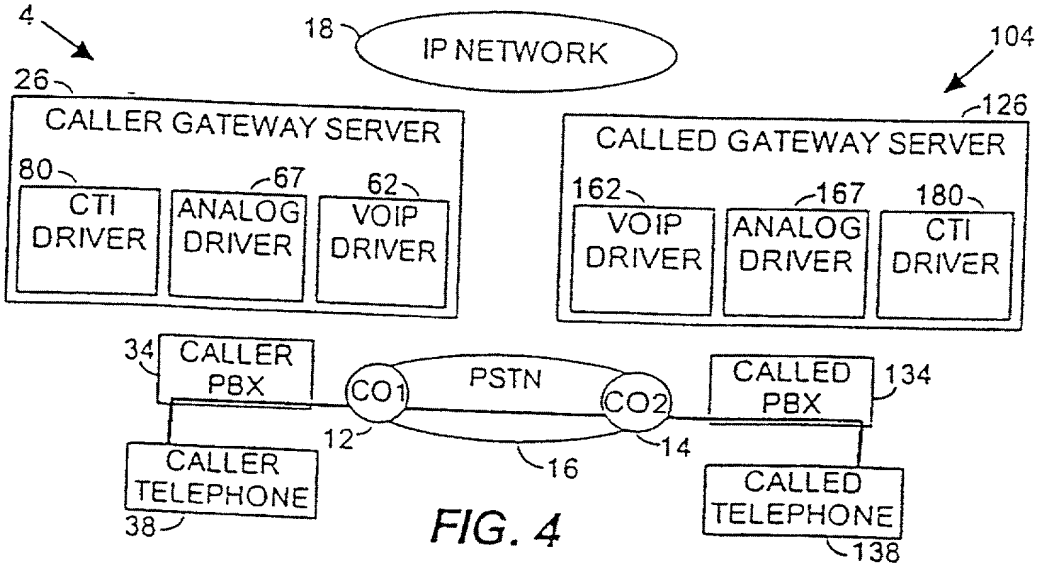
4
18
IP NETWORK
104
26
CALLER GATEWAY SERVER
126
CALLED GATEWAY SERVER
80
CTI DRIVER
67
ANALOG DRIVER
62
VOIP DRIVER
162
VOIP DRIVER
167
ANALOG DRIVER
180
CTI DRIVER
34
CALLER PBX
CO1
PSTN
CO2
CALLED PBX
134
12
14
16
CALLER TELEPHONE
38
CALLED TELEPHONE
138

FIG. 4

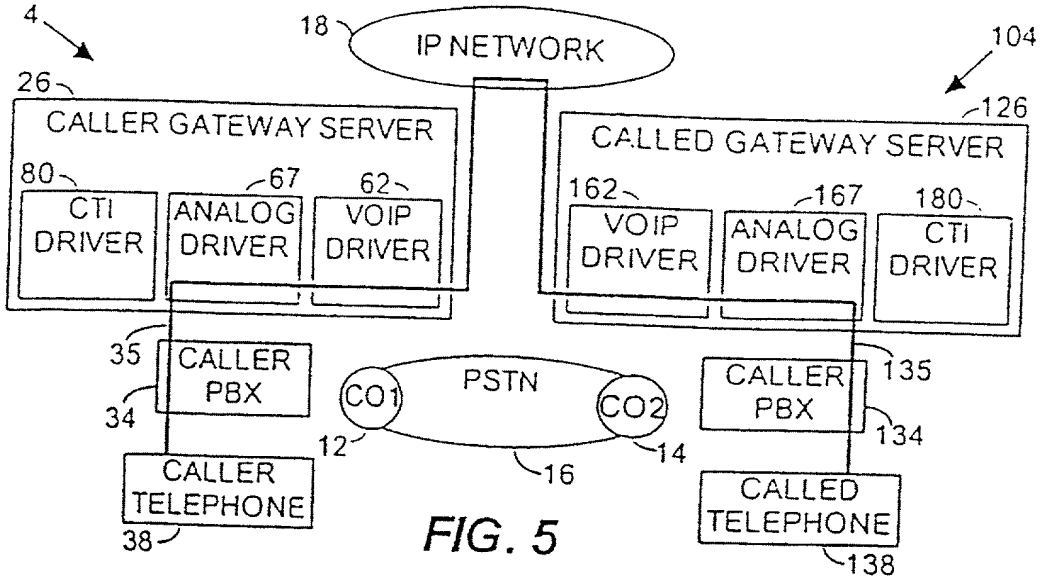

FIG. 5

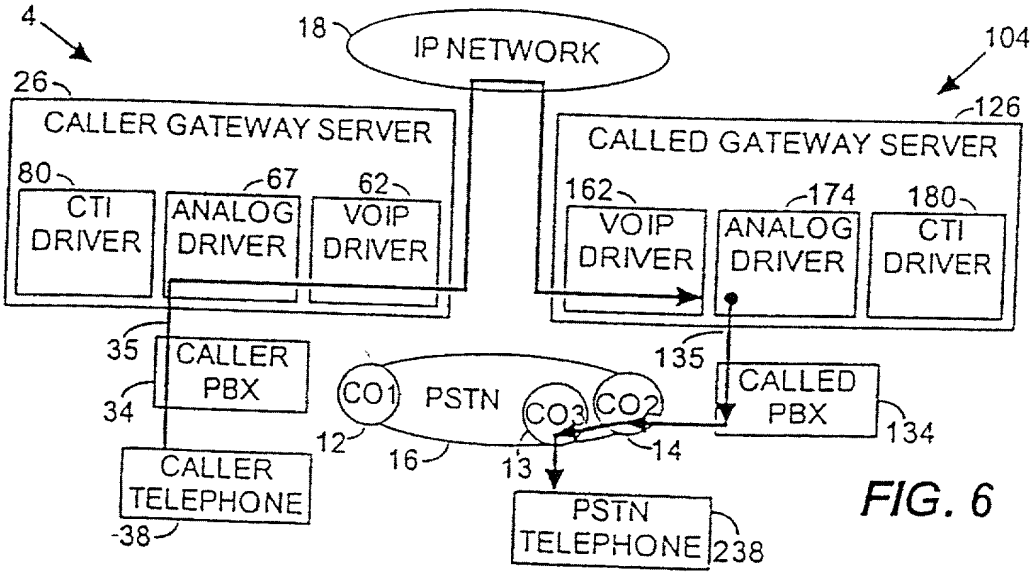

FIG. 6

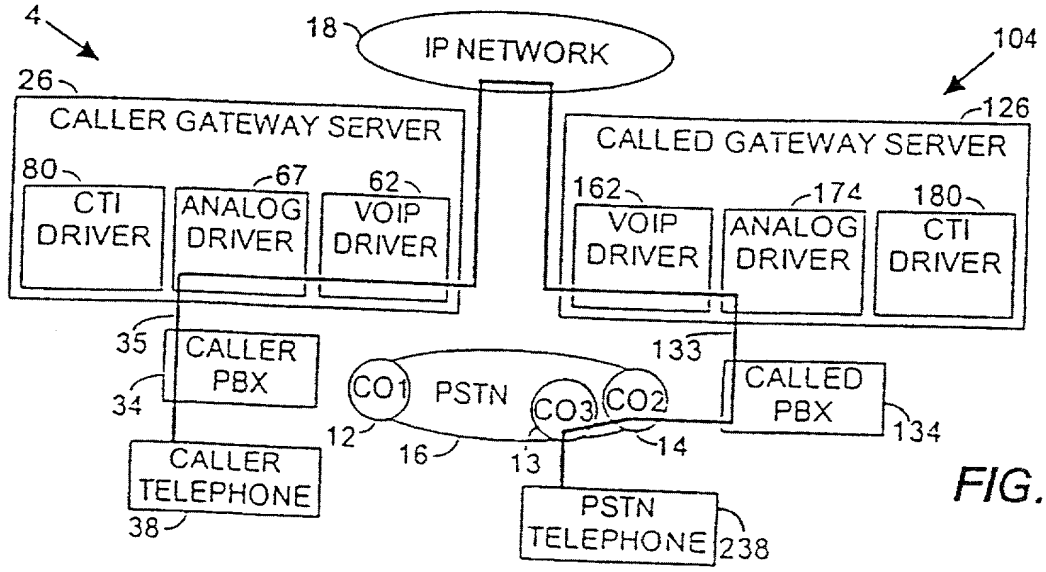

FIG. 7

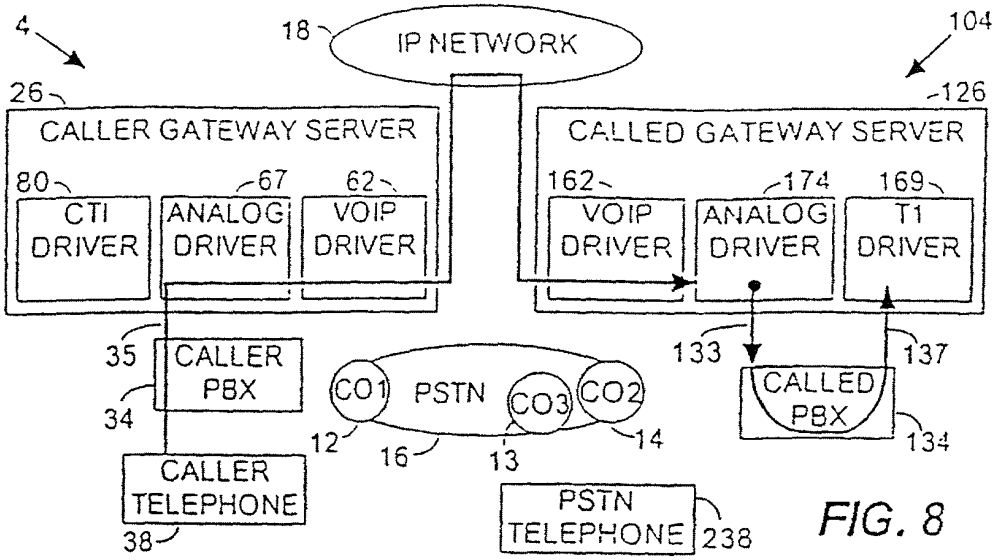

FIG. 8

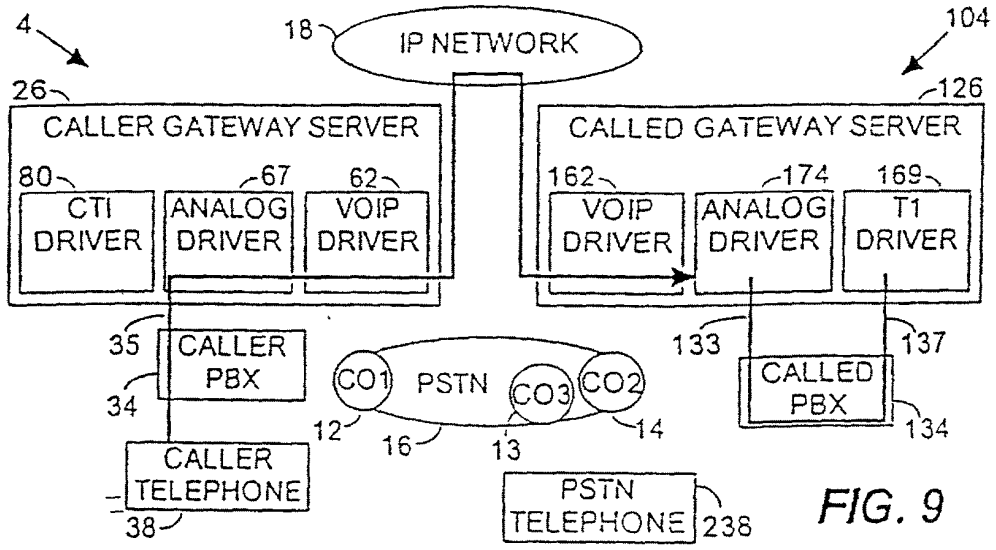

FIG. 9

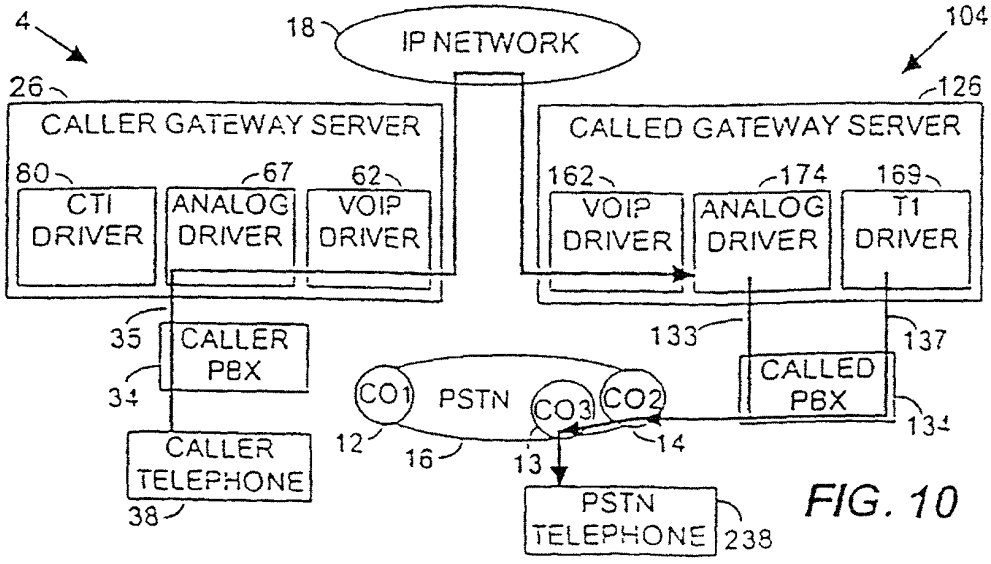

FIG. 10

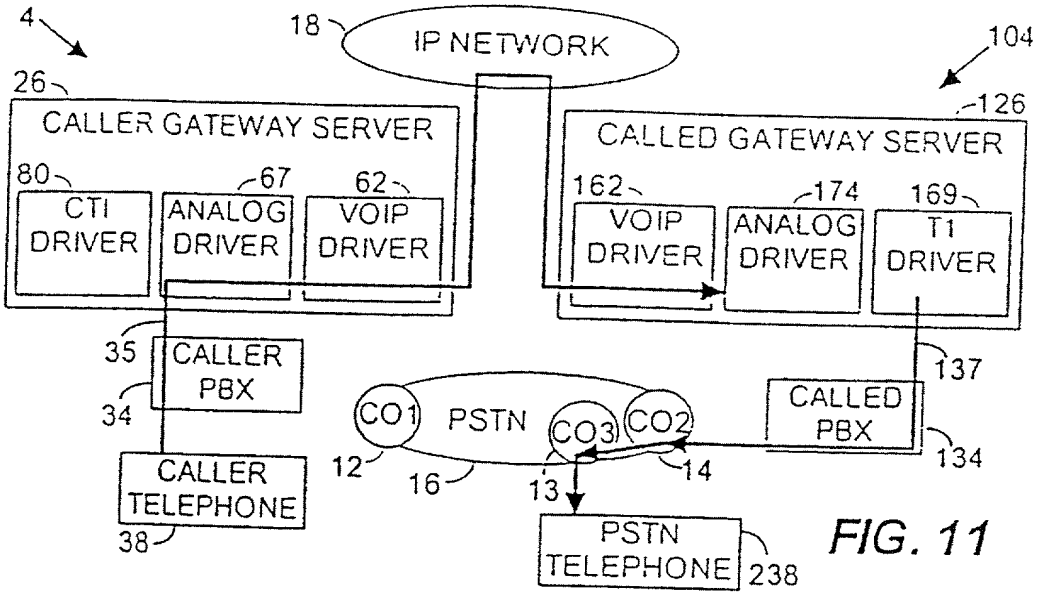

FIG. 11

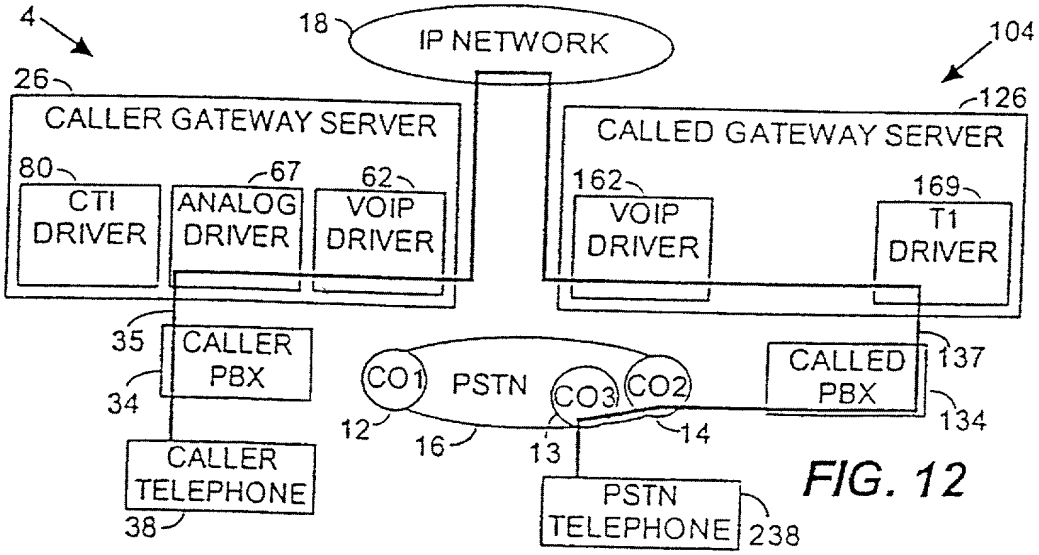

FIG. 12

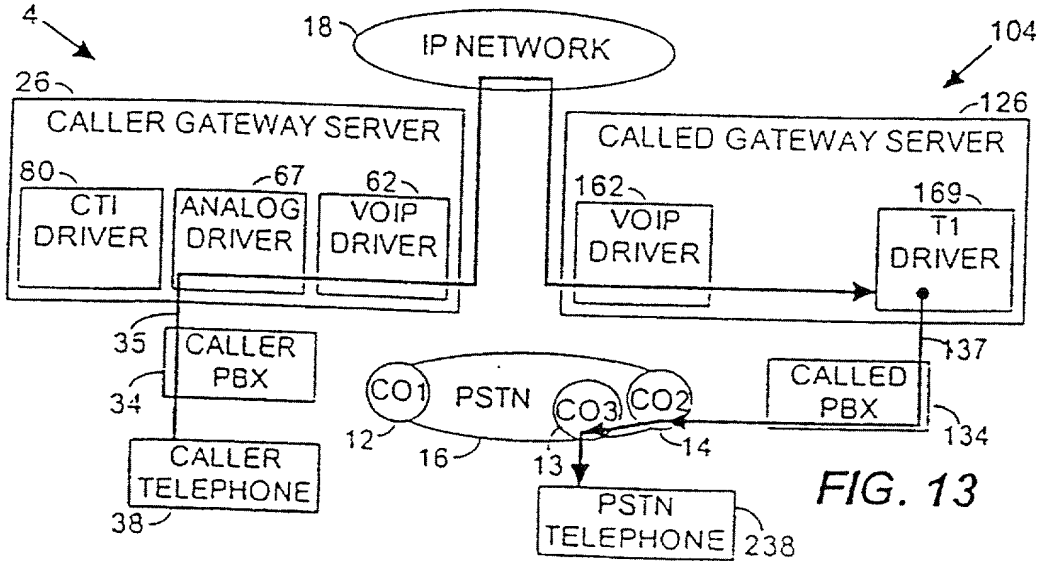

FIG. 13

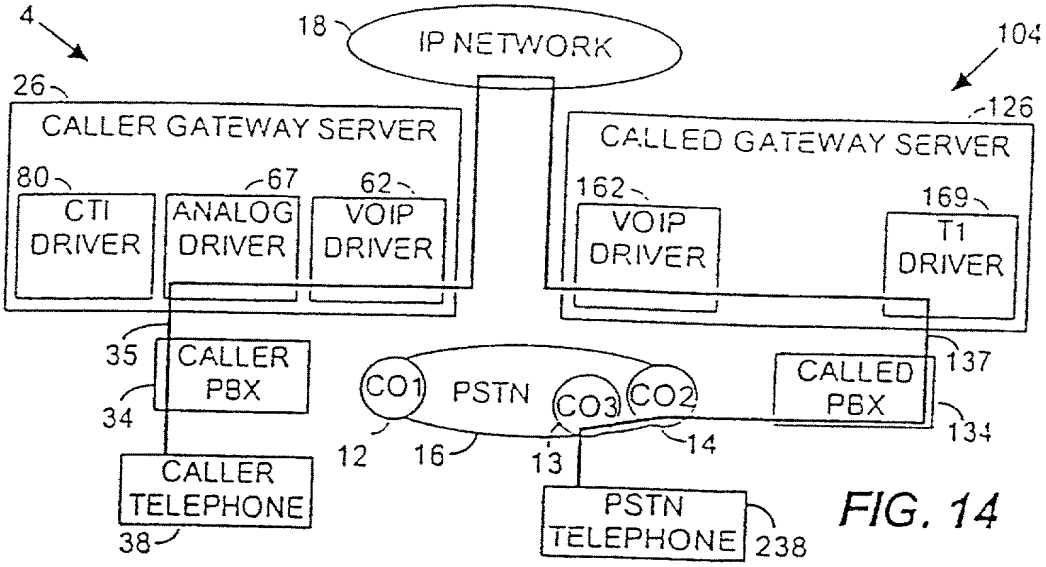

FIG. 14

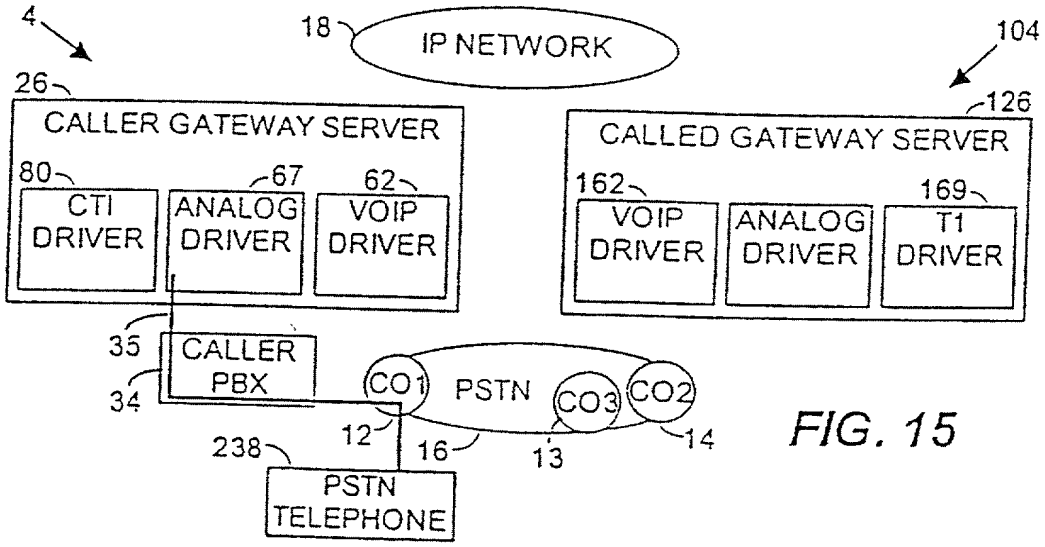

FIG. 15

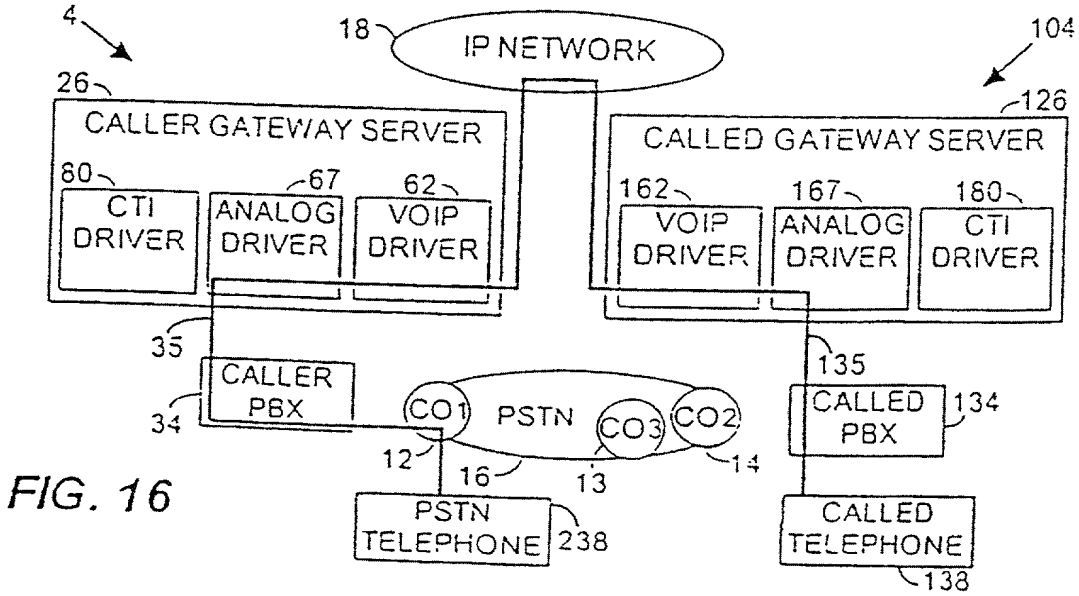

FIG. 16

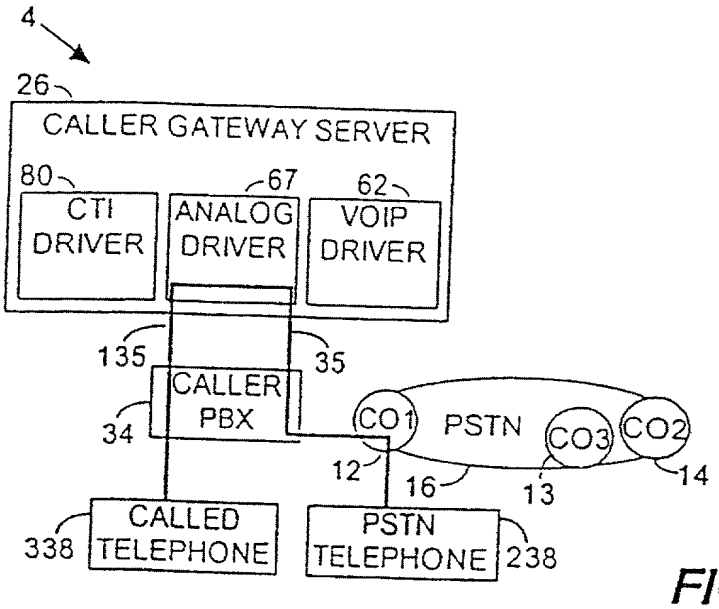

FIG. 17

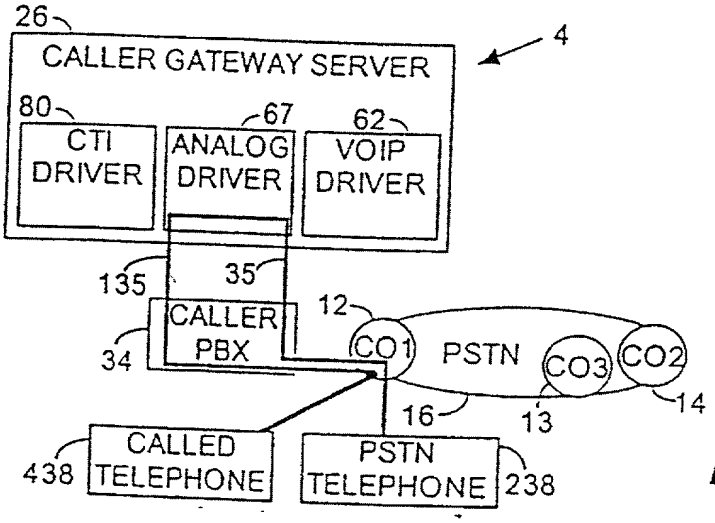

FIG. 18

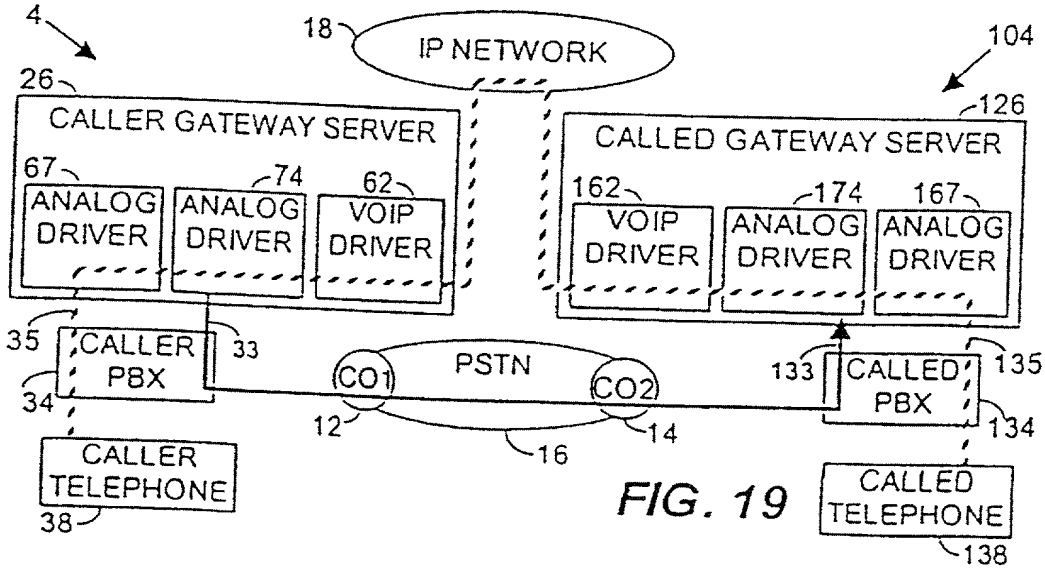

FIG. 19

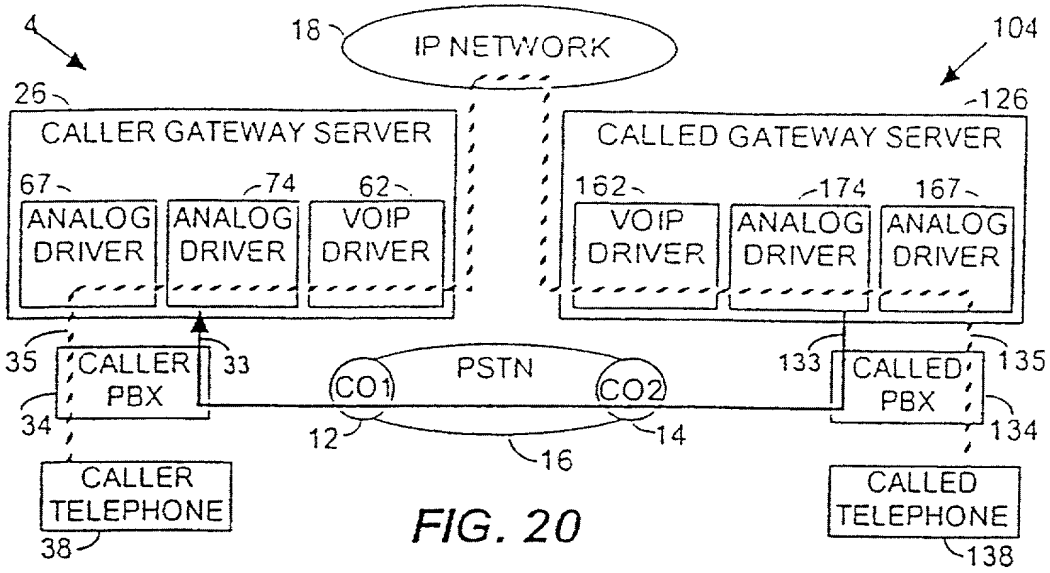

FIG. 20

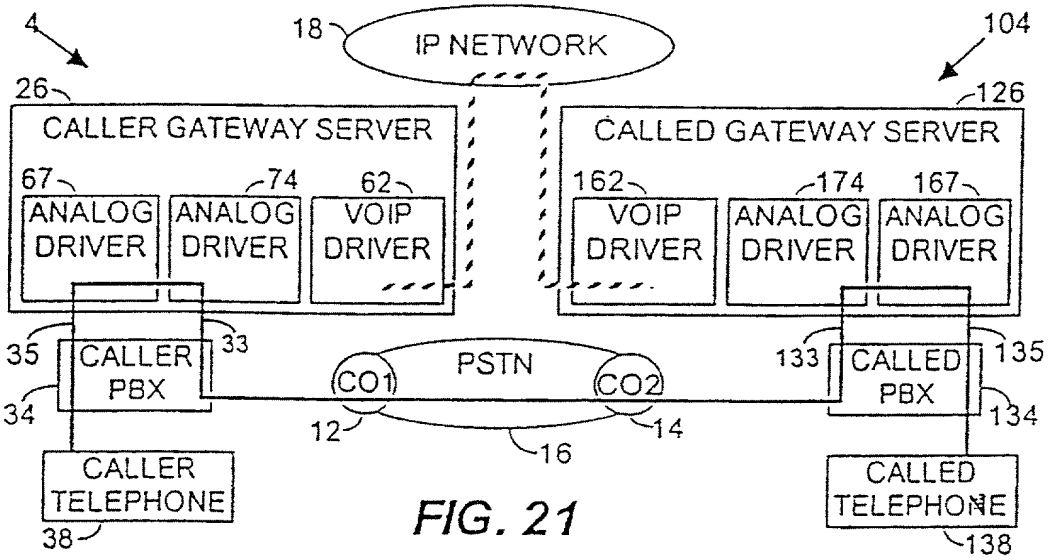

FIG. 21

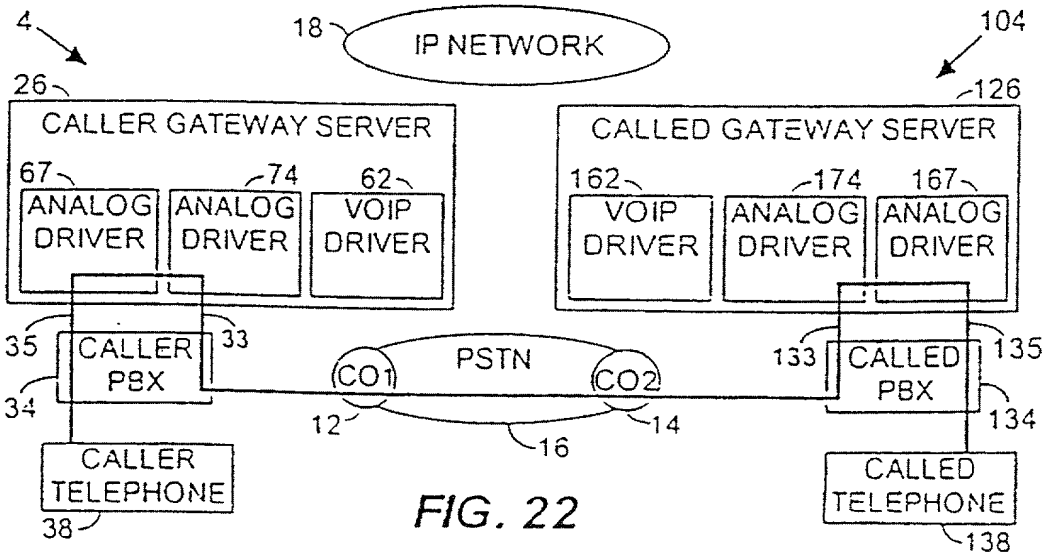

FIG. 22

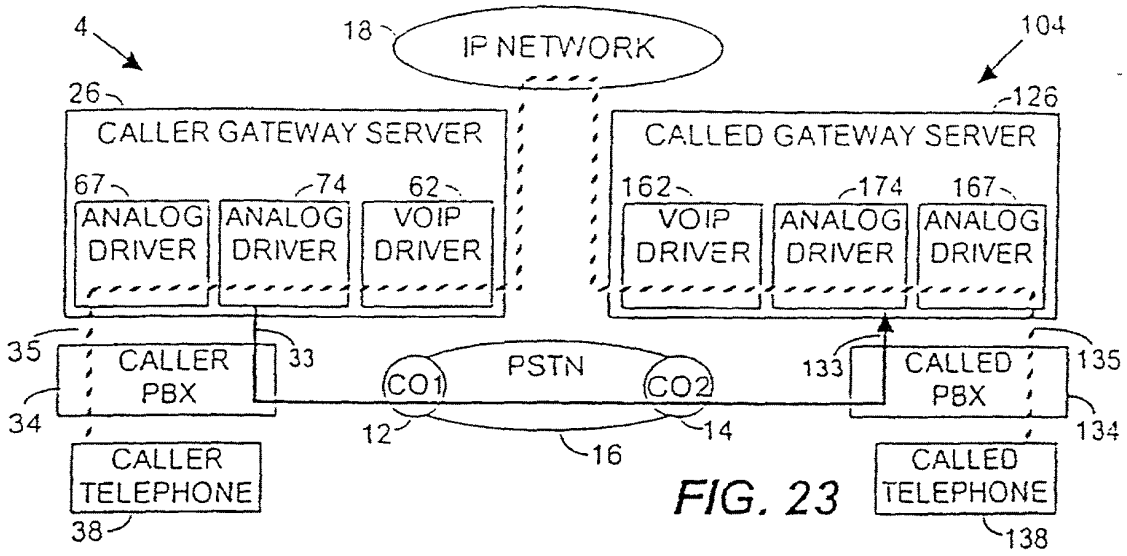

FIG. 23

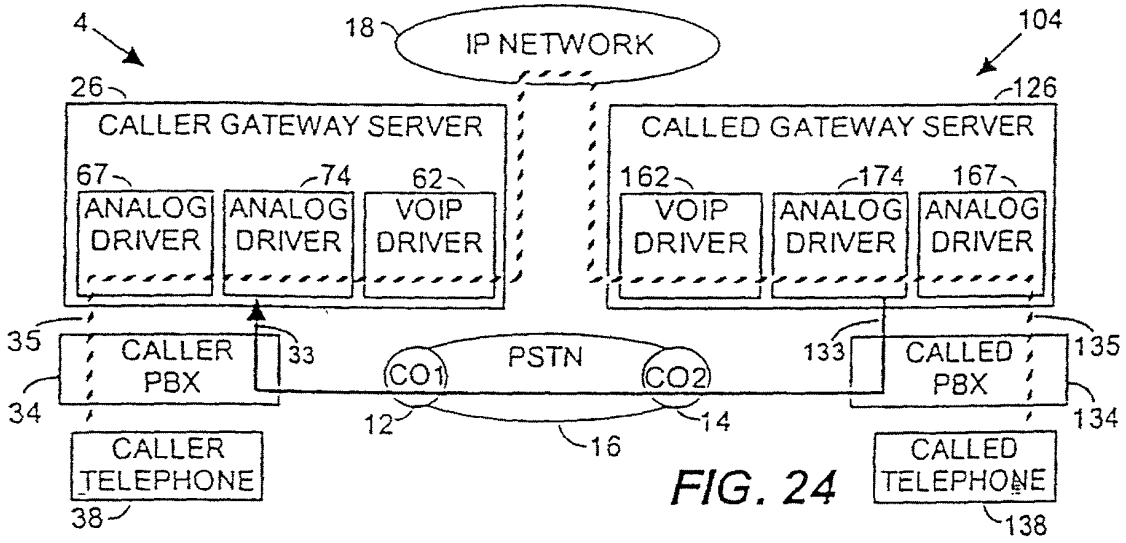

FIG. 24

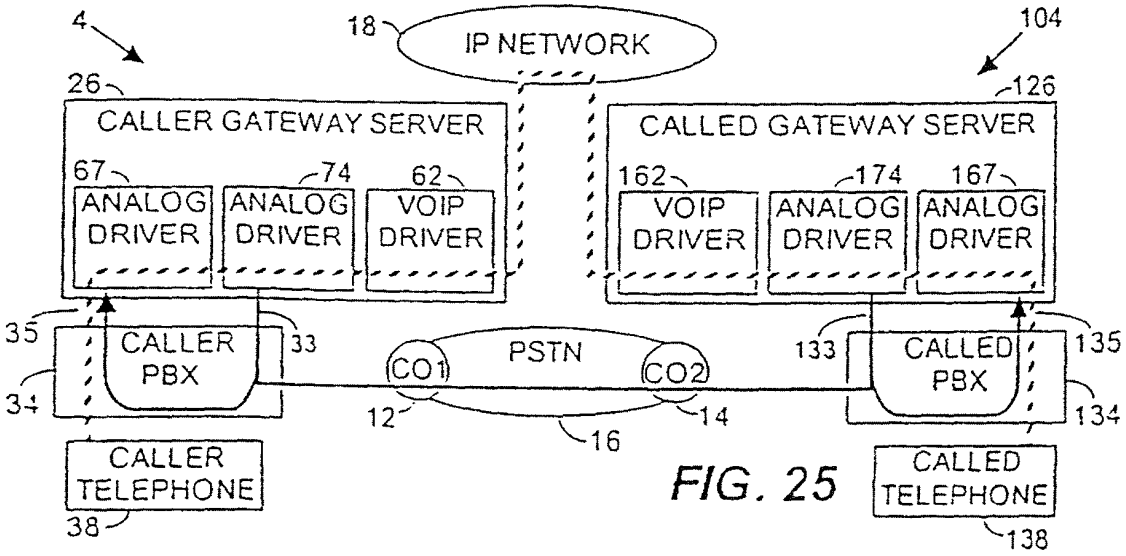

FIG. 25

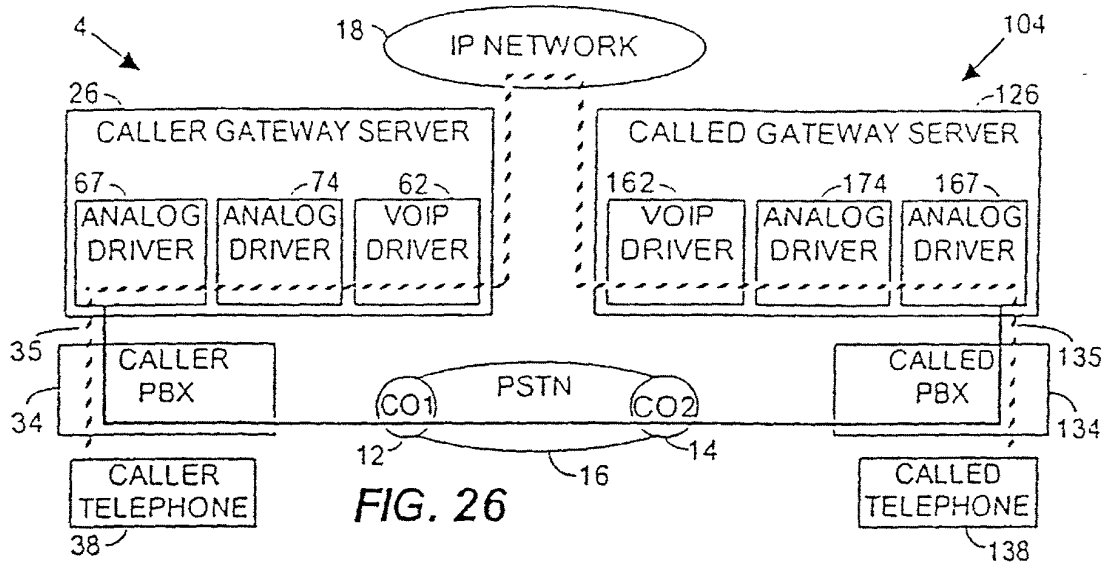

FIG. 26

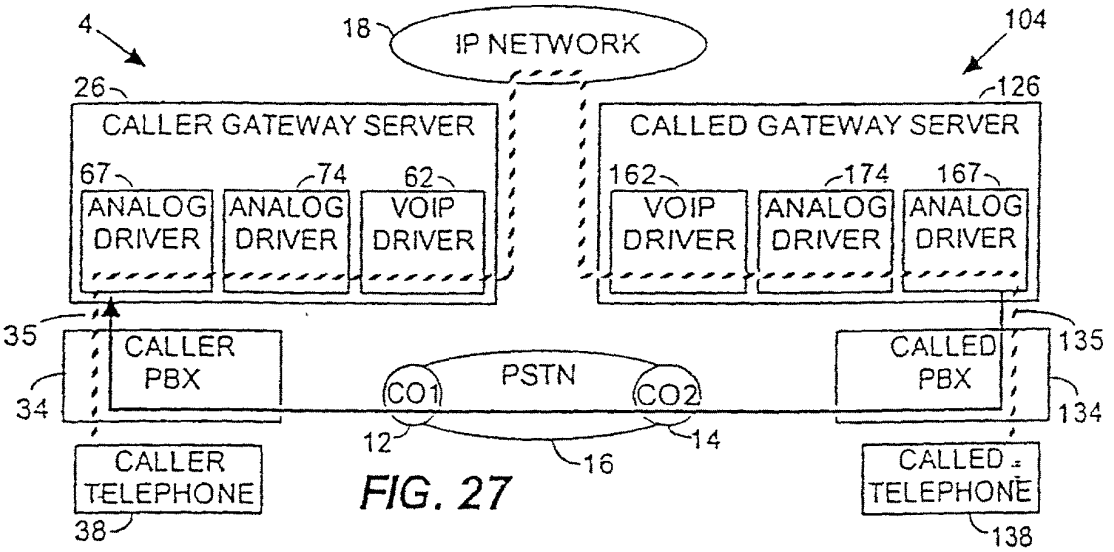

FIG. 27

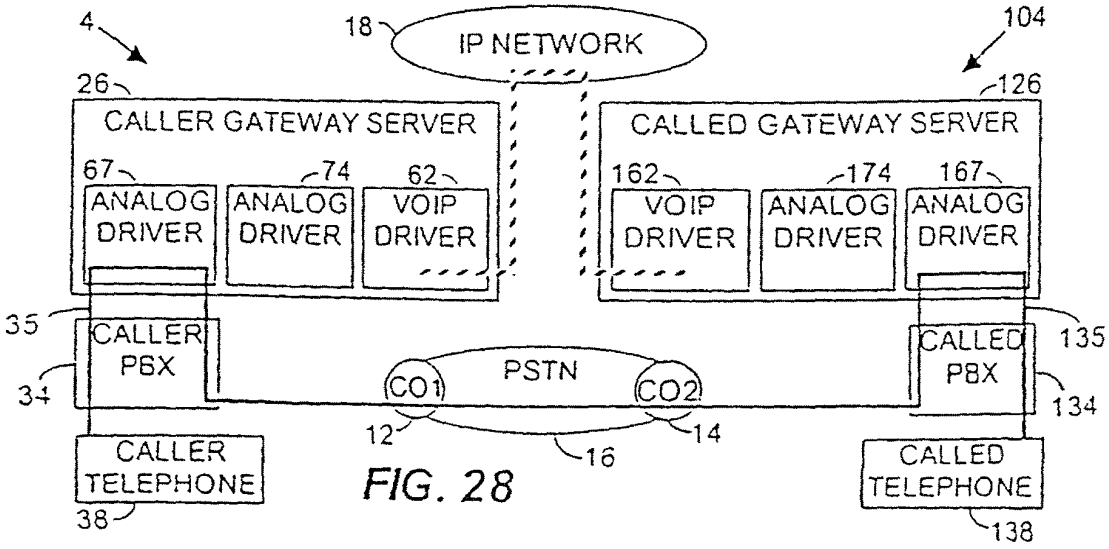

FIG. 28

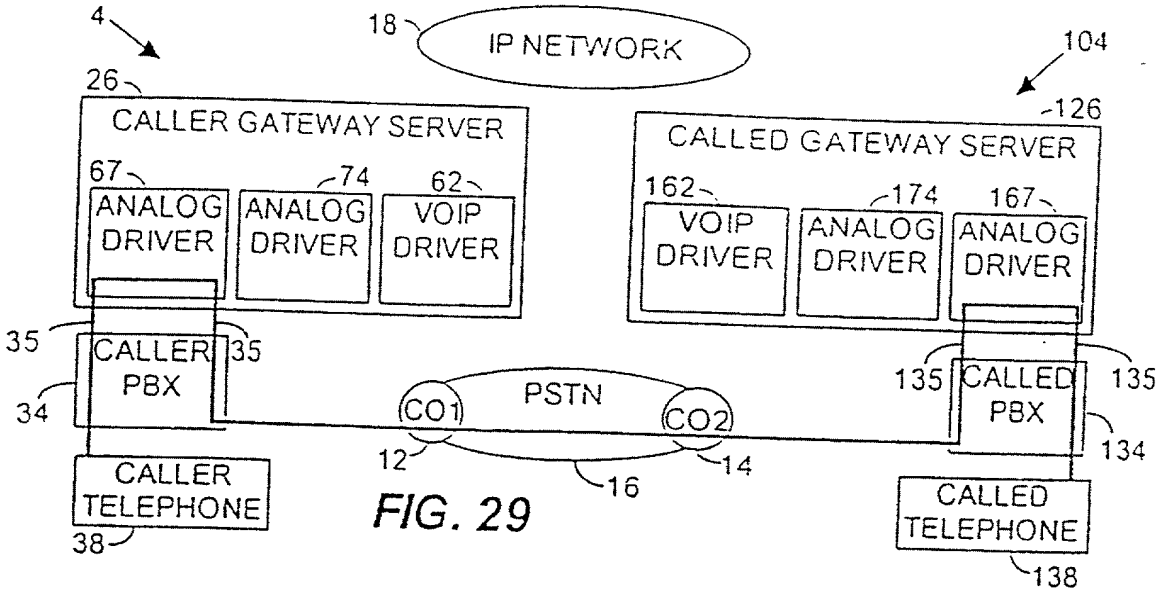

FIG. 29

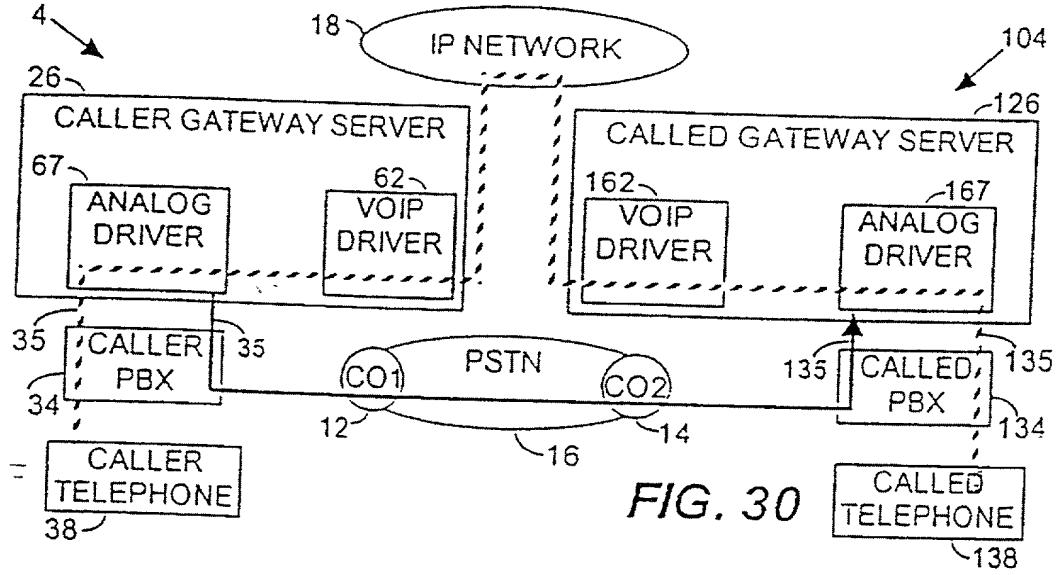

FIG. 30

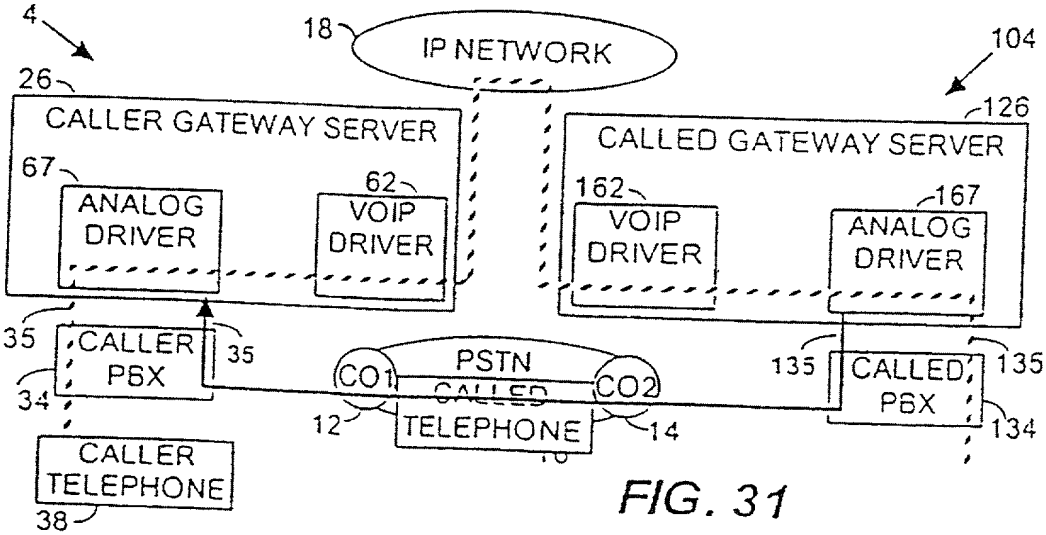

FIG. 31

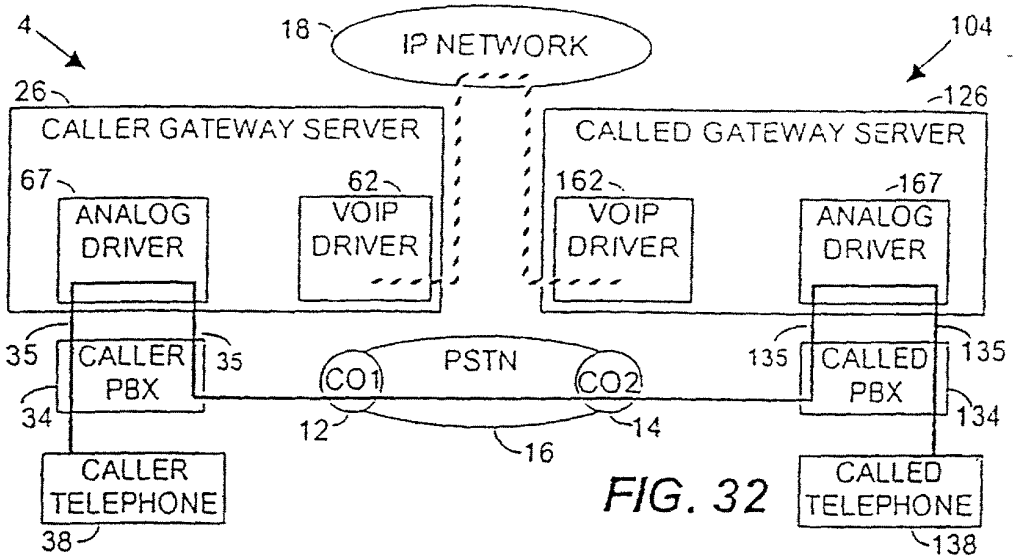

FIG. 32

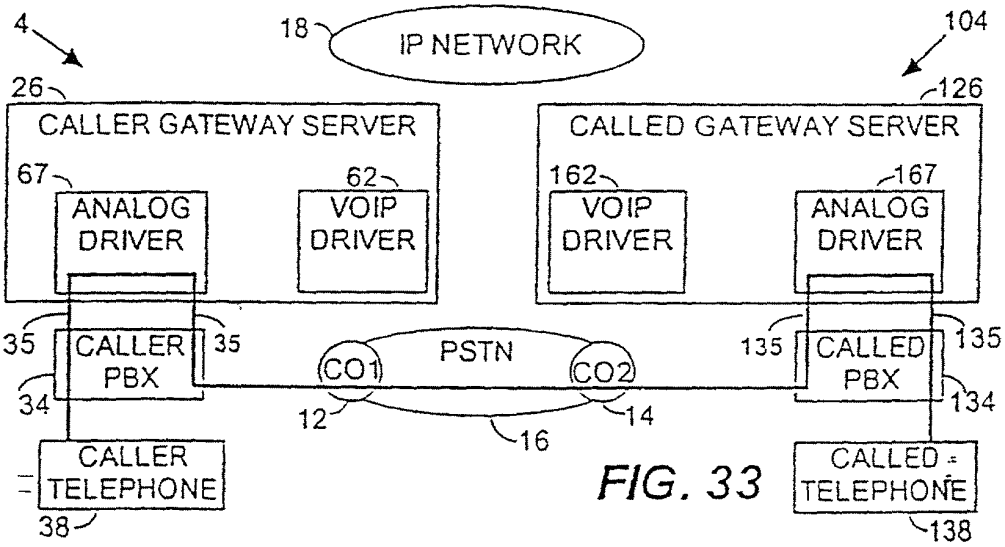

FIG. 33

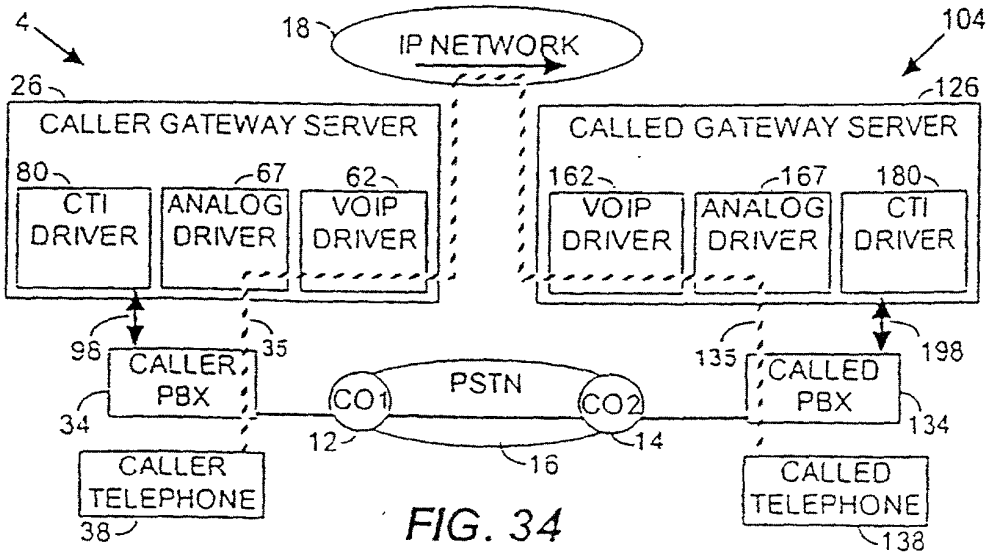

FIG. 34

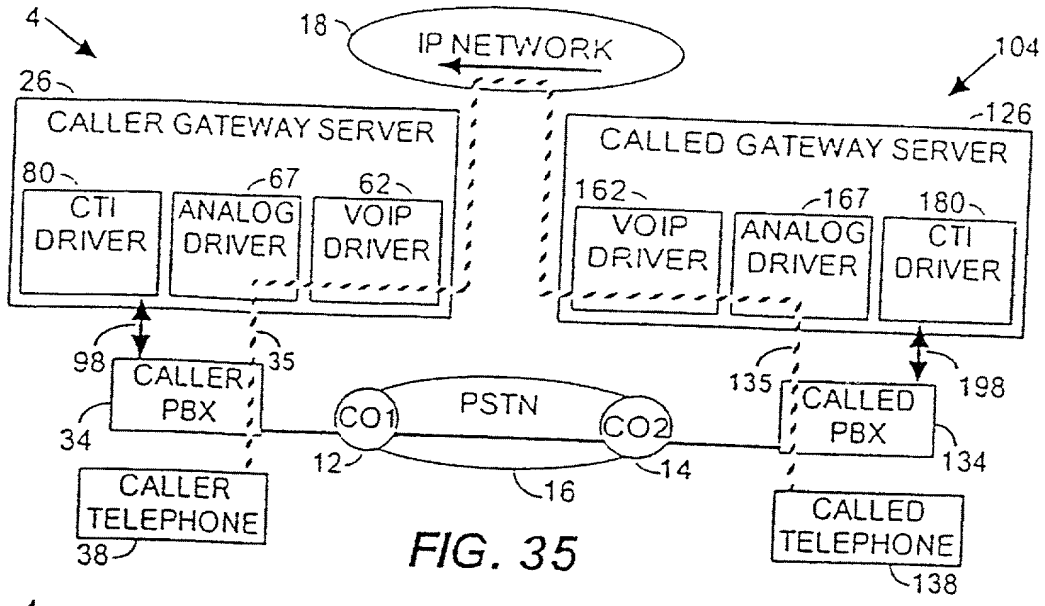

FIG. 35

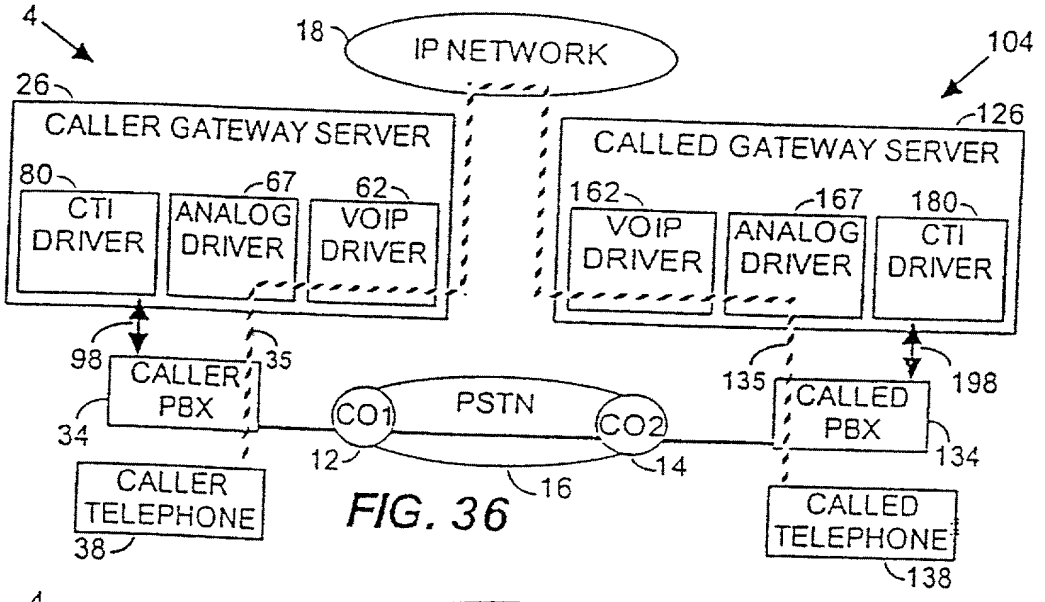

FIG. 36

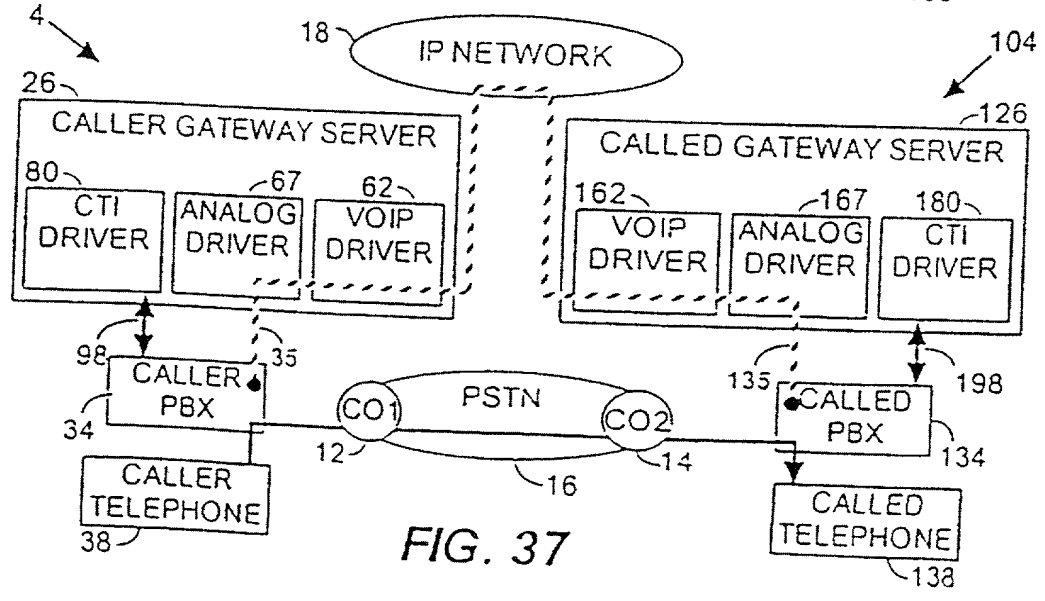

FIG. 37

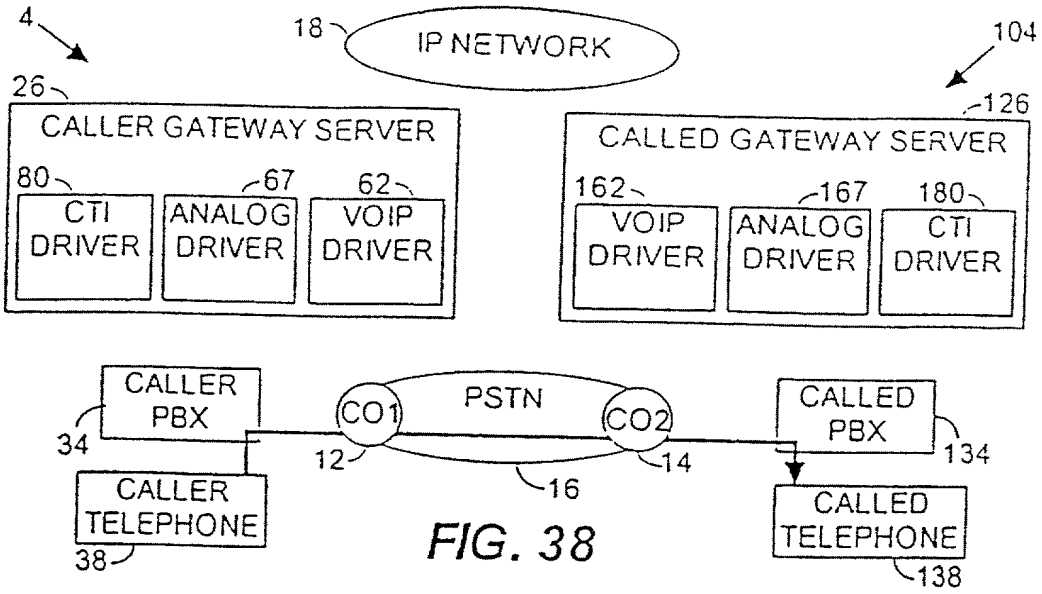

FIG. 38

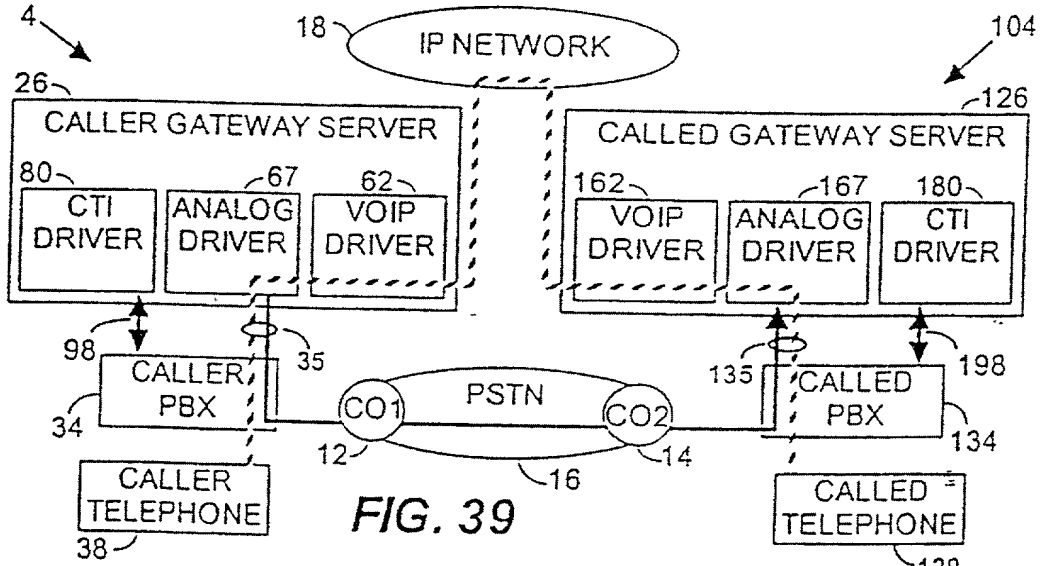

FIG. 39

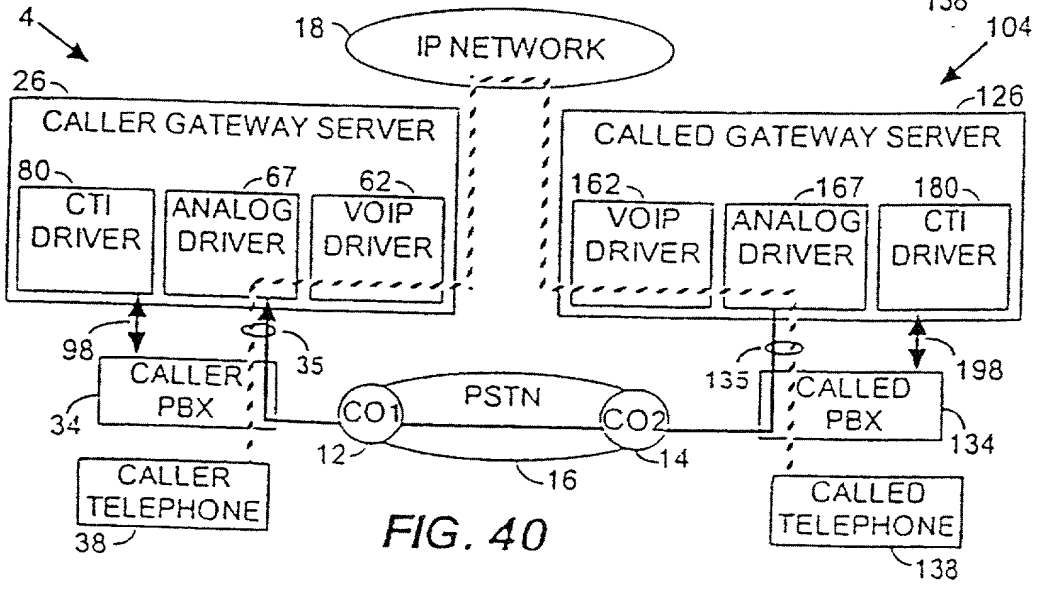

FIG. 40

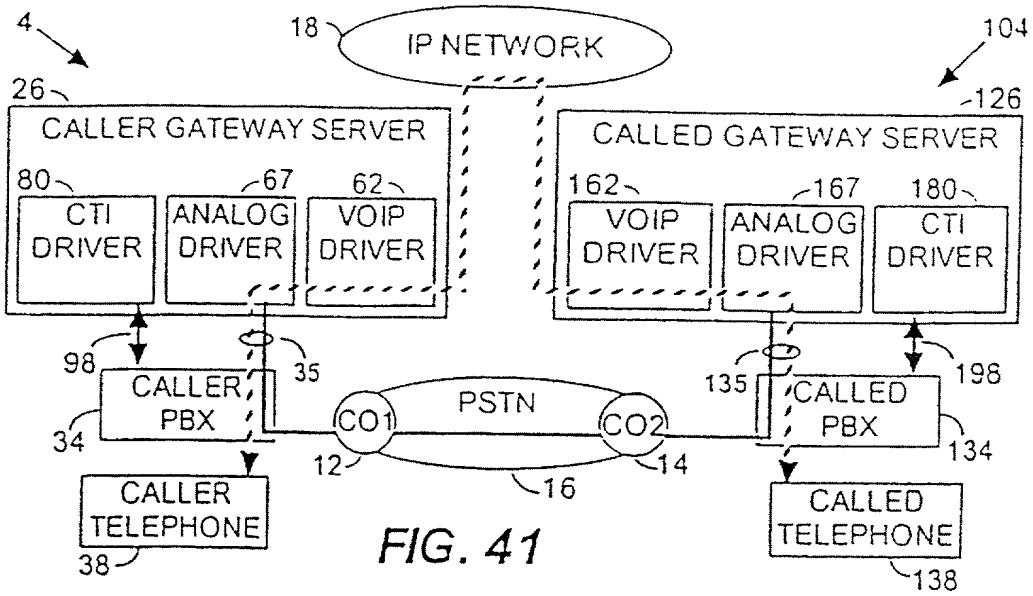

FIG. 41

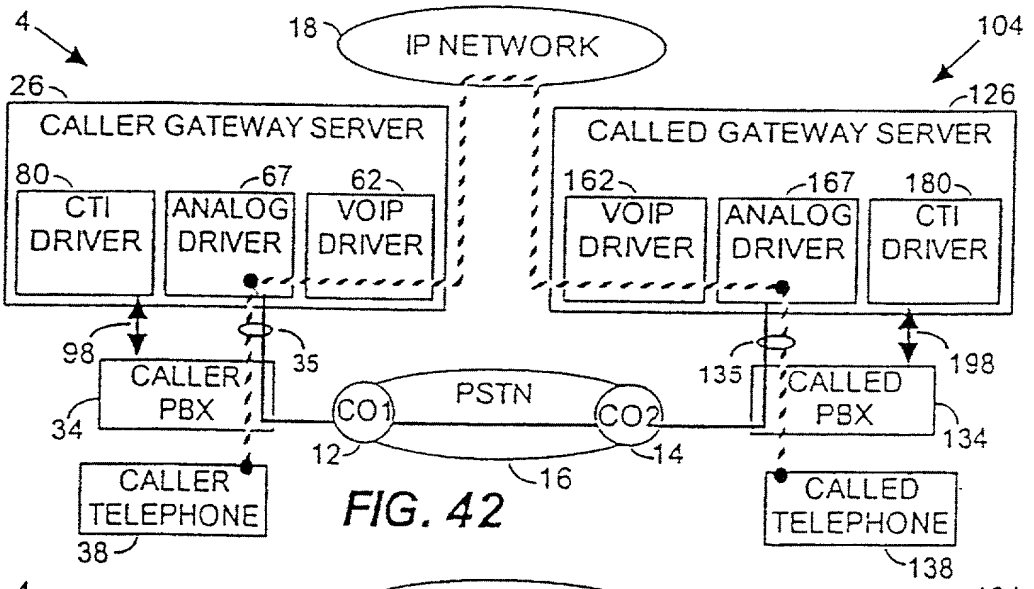

FIG. 42

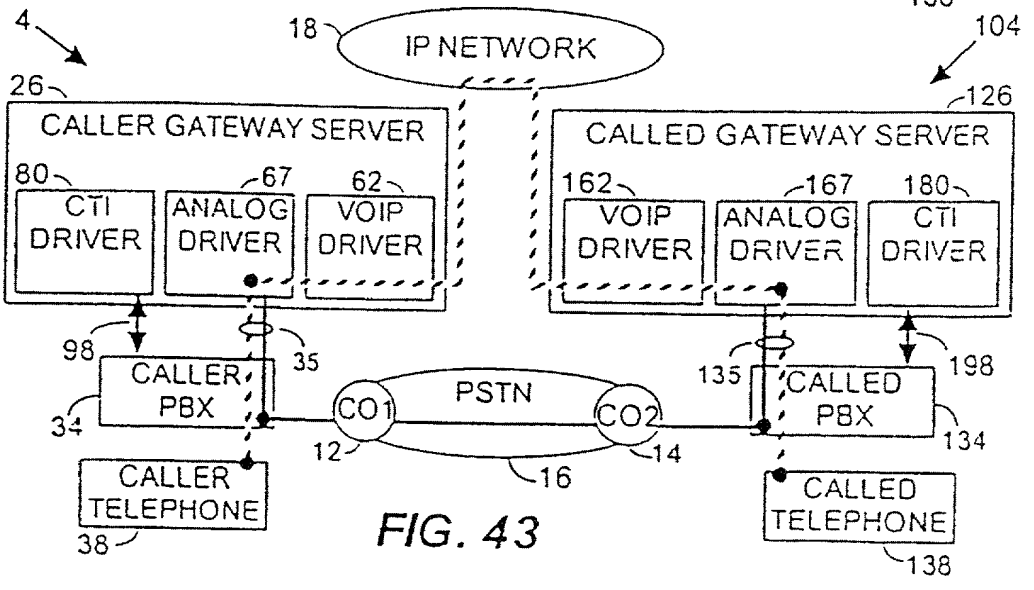

FIG. 43

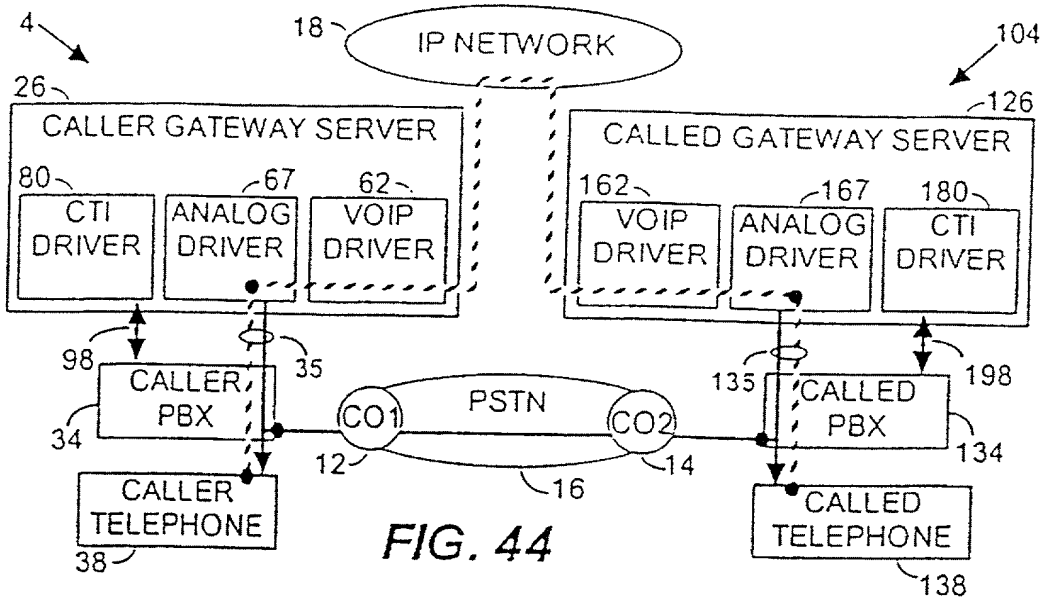

FIG. 44

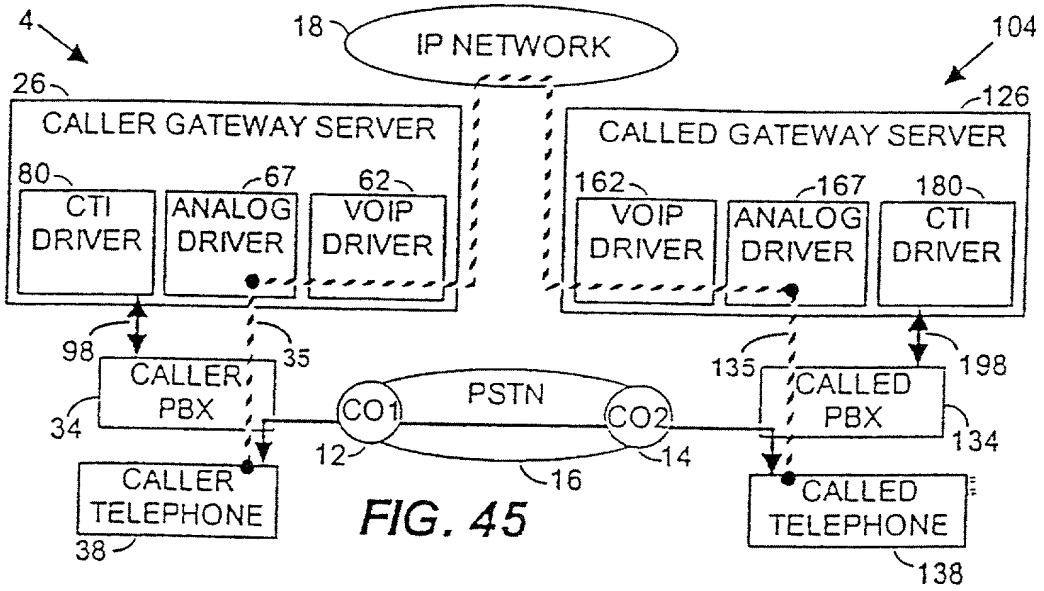

FIG. 45

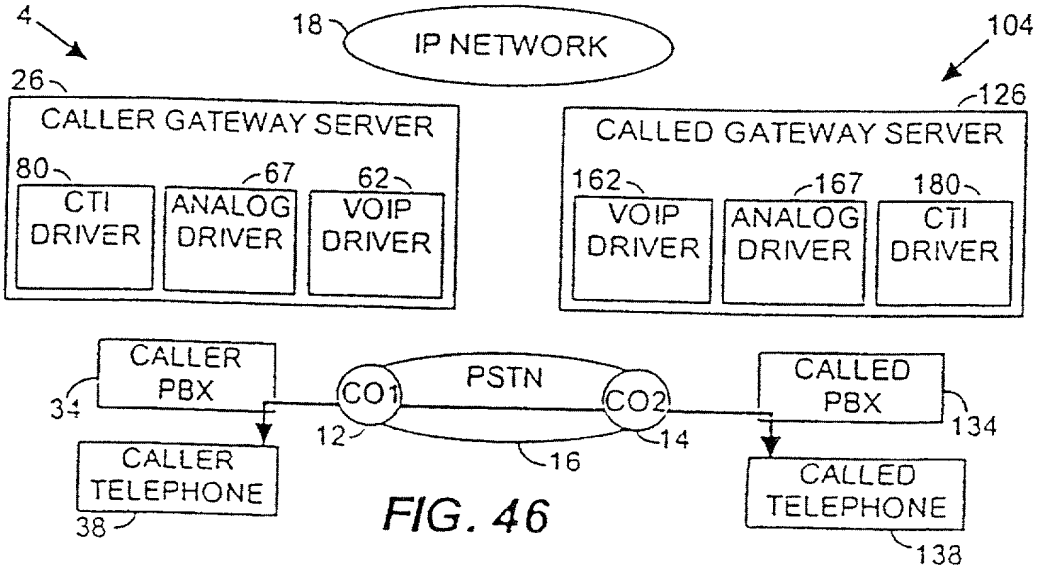

FIG. 46

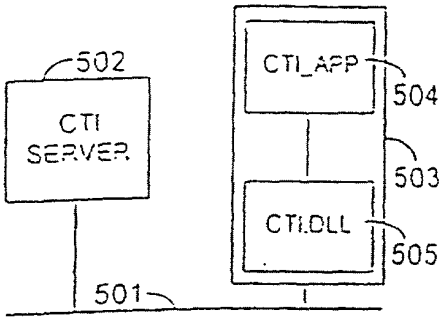

FIG. 47 (PRIOR ART)

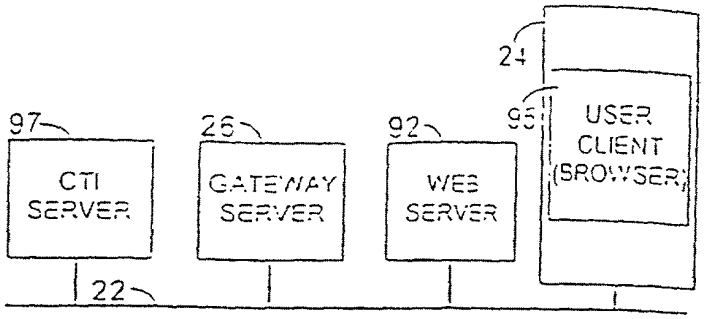

FIG. 48

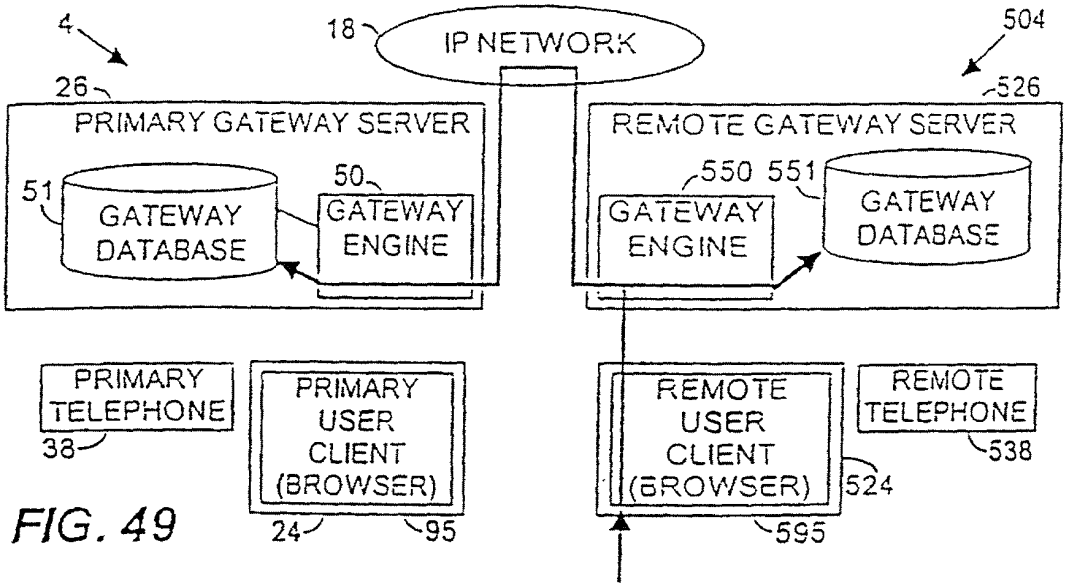

FIG. 49

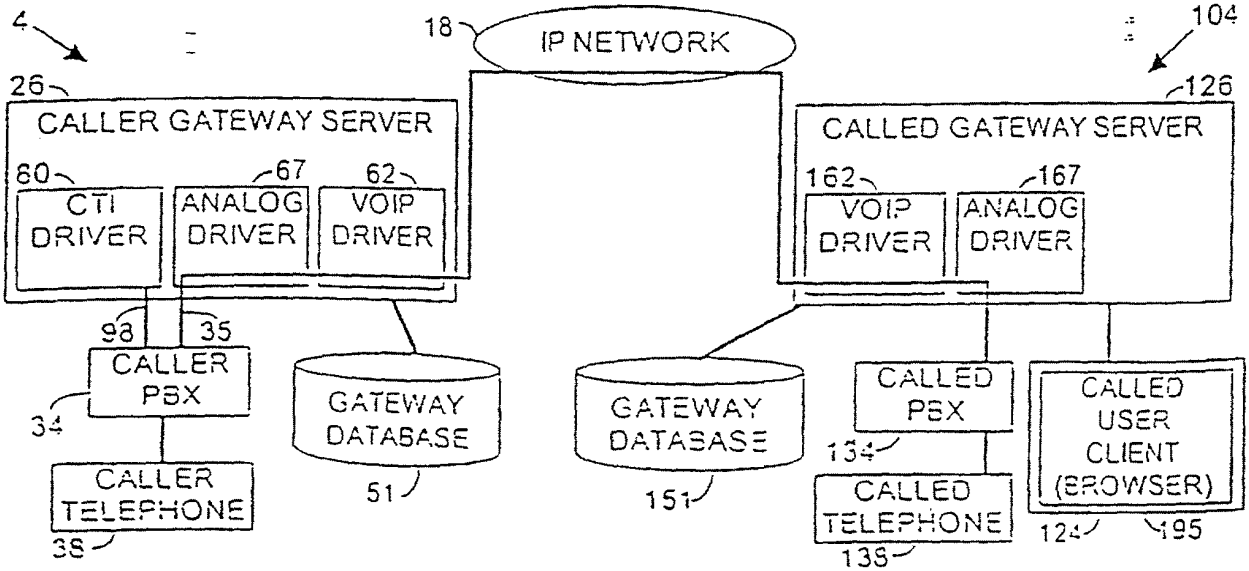

FIG. 50

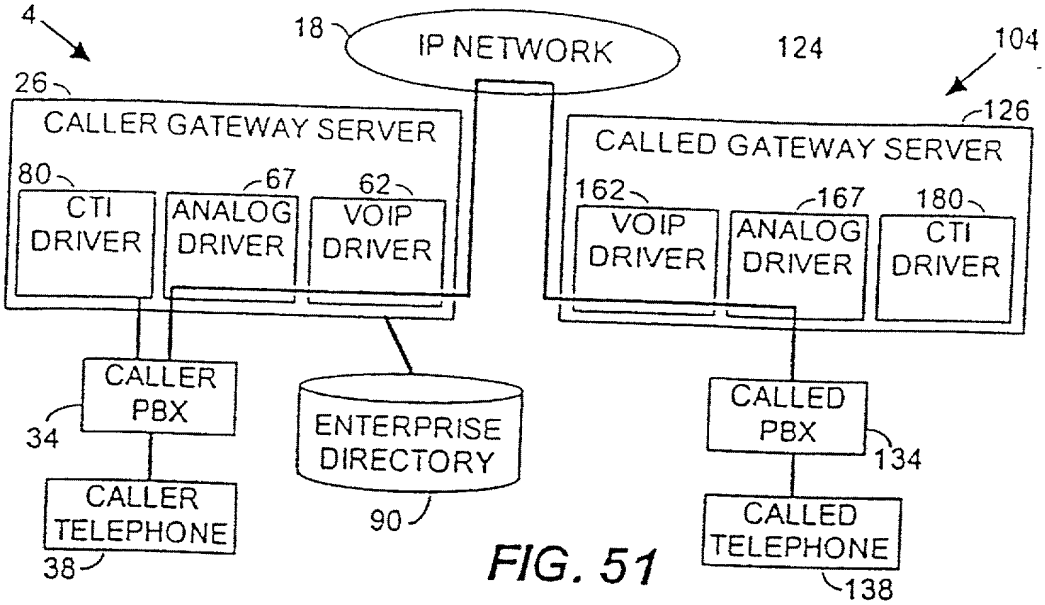

FIG. 51

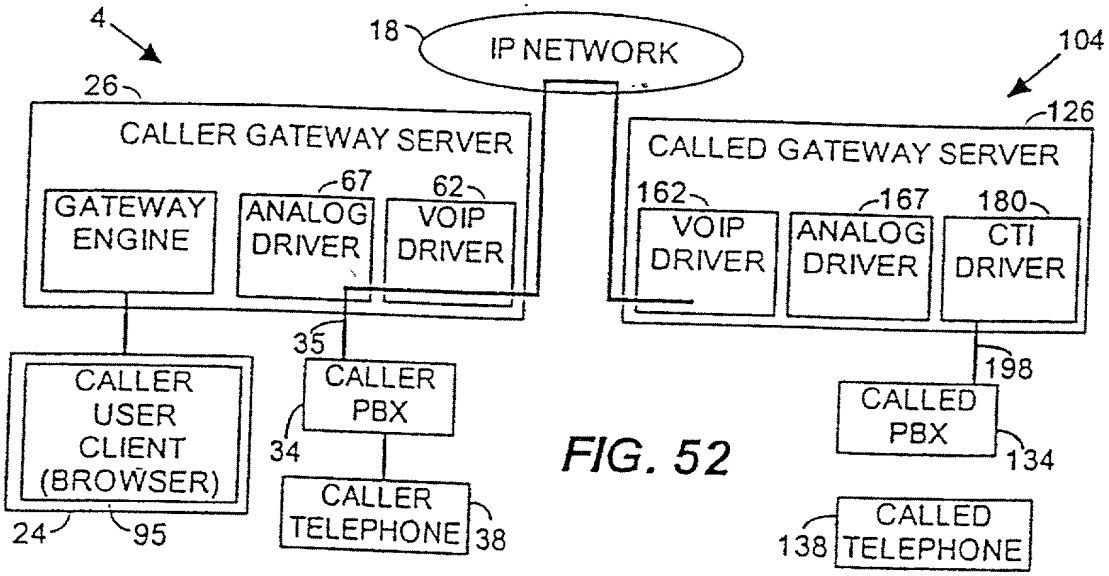

FIG. 52

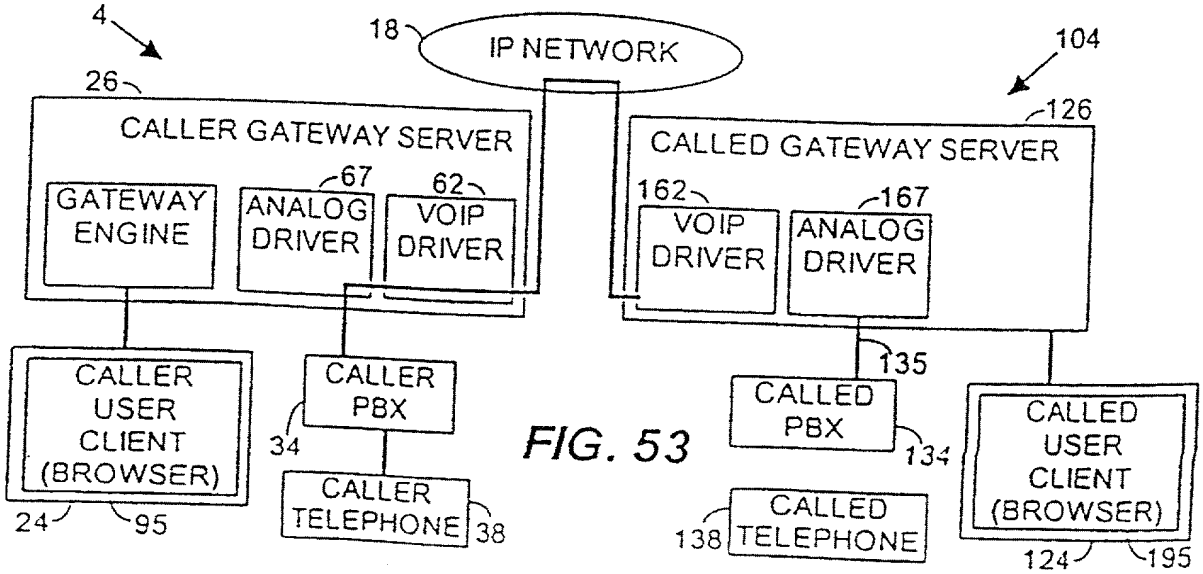

FIG. 53

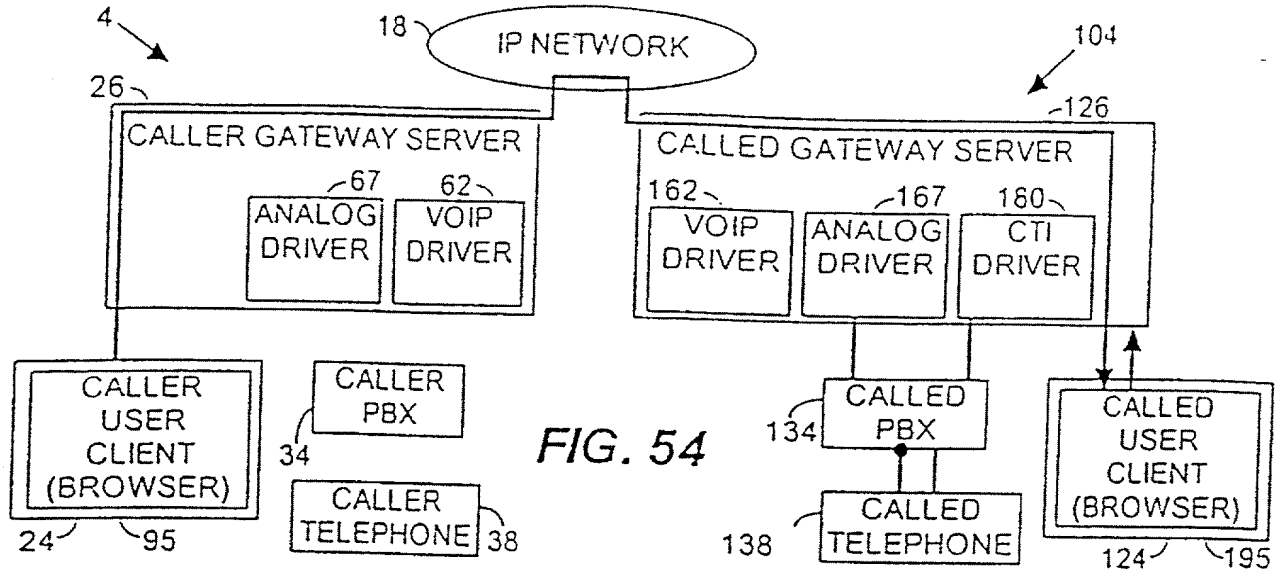

FIG. 54

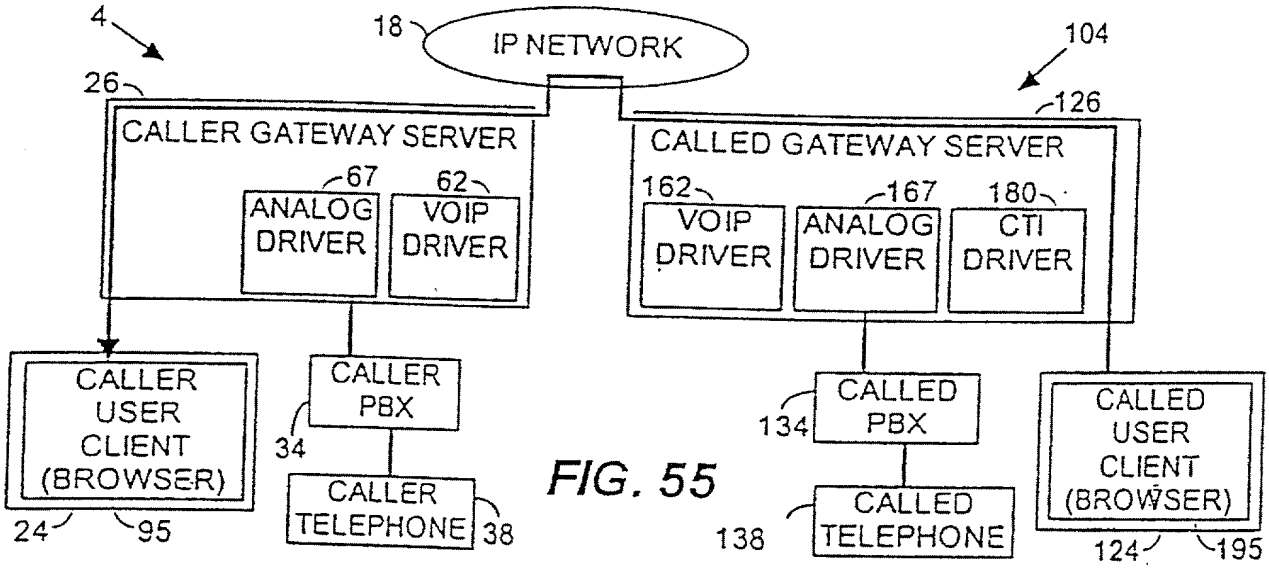

FIG. 55

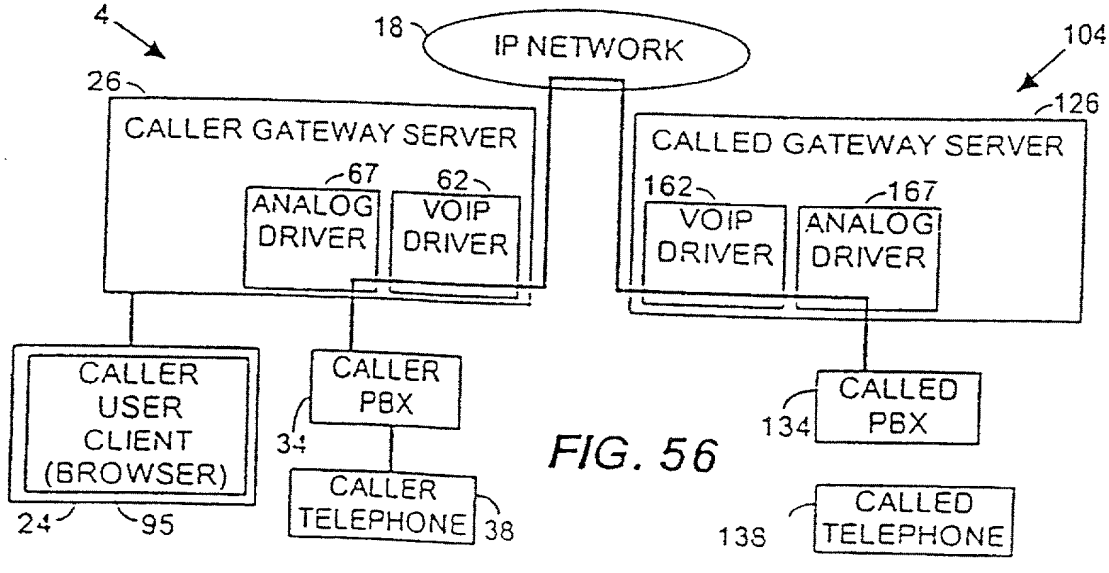

FIG. 56

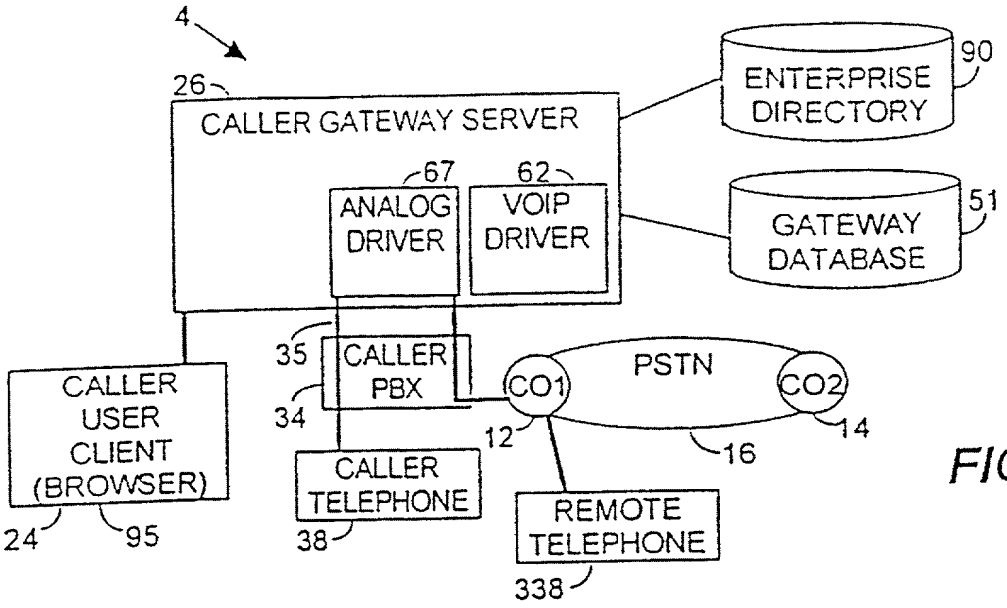
4
26
CALLER GATEWAY SERVER
67
ANALOG DRIVER
62
VOIP DRIVER
ENTERPRISE DIRECTORY
90
GATEWAY DATABASE
51
35
CALLER PBX
34
CALLER USER CLIENT (BROWSER)
24
95
CALLER TELEPHONE
38
CO1
12
PSTN
CO2
14
16
REMOTE TELEPHONE
338

FIG. 57

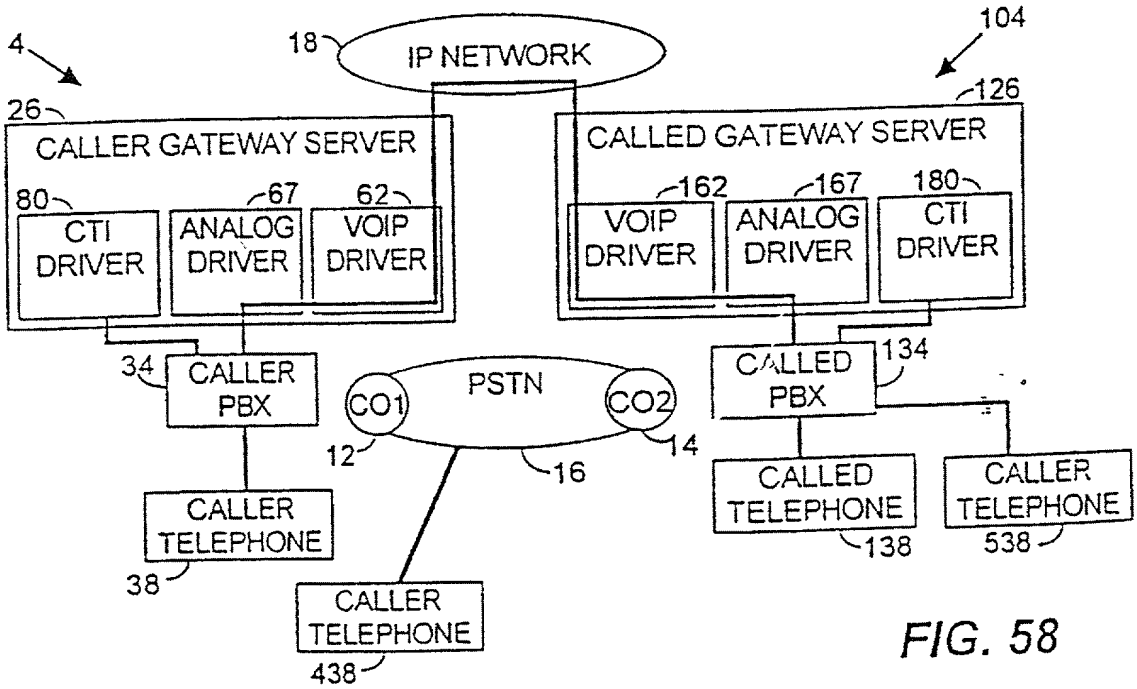
4
18
IP NETWORK
104
126
26
CALLER GATEWAY SERVER
CALLED GATEWAY SERVER
80
CTI DRIVER
67
ANALOG DRIVER
62
VOIP DRIVER
162
VOIP DRIVER
167
ANALOG DRIVER
180
CTI DRIVER
34
CALLER PBX
CO1
12
PSTN
CO2
14
16
CALLED PBX
134
CALLER TELEPHONE
38
CALLED TELEPHONE
138
CALLER TELEPHONE
538
CALLER TELEPHONE
438

FIG. 58